

Bay Enterprises

Closure Plan

Phase 1 Final

for the

**Romic Environmental Technologies Corp.
TSD Facility**

East Palo Alto, California

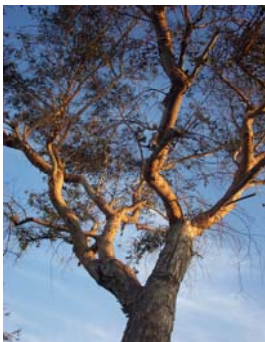
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Prepared For

**The California Department of
Toxic Substances Control**

EXECUTIVE SUMMARY



Introduction

This summary provides an explanatory overview of Bay Enterprises' (Bay) goals, objectives, and closure decommissioning methodologies related to the closure of the former Romic Environmental Technologies, Corporation, East Palo Alto, California facility (Facility).

Closure activities associated with the Facility will be conducted in two distinct and separate operational phases.

Phase One

The Phase One plan describes and addresses all relevant and regulatory required aspects of the closing, decommissioning, removal and final disposition of all above ground facilities, equipment, buildings, and units used for hazardous waste management, irrespective of use or permit status.

Phase One closure activities will be performed in accordance with 22 CCR 66264, Article 7, section 66264.178, and section 66264.197. The Department of Toxic Substances Control (DTSC) will oversee the regulatory process of all closure activities related to Phase One of the plan.

Phase Two

The Phase Two plan will describe and address all relevant and regulatory required aspects of site related surface and subsurface soil and groundwater characterization, risk assessment, corrective action approach and verification of meeting corrective action objectives as outlined in the US Environmental Protection Agency's (U.S. EPA) recently released "Statement of Basis for Proposed Soil and Ground Water Remedy" for the former Romic site.

Phase Two closure activities will be performed under the requirements of Federal EPA Site Closure and corrective action requirements in addition to California 22 CCR 66264, Article 7, section 66264.178, and section 66264.197. The U.S. EPA and the DTSC will coordinate and oversee all closure activities associated with remediation of subsurface soils and related groundwater contamination.

It is understood that this revised closure plan encompasses all activities associated with **Phase 1** of the facility closure only and provides a comprehensive written explanation of how Bay will decommission and remove all hazardous waste processing and storage systems and equipment including all physical structures associated with the processing of, or having been in contact with, hazardous wastes.

In light of the recent decision to prematurely terminate operations in East Palo Alto, a number of additions and modifications not found in the original plan have been introduced to this revised closure plan. Bay believes this updated Phase 1 closure plan addresses the actual facility operational conditions and circumstances concurrent with present regulatory, environmental and economic conditions, and community concerns.

Closure Plan Goals

1. To close the Facility in strict adherence with current state and federal environmental and health and safety requirements.
2. To close the Facility so that the property can be returned to productive use.
3. To conduct all closure related activities in an open, transparent, and verifiable manner.
4. To conduct closure in an environmentally friendly ("green") manner.

Closure Plan Objectives

The following objectives are listed in order of priority which will enable Bay to achieve the goals of a safe and successful closure.

1. Health and Safety Plan Development and Operational Implementation

Paramount to all other closure considerations is the continued efforts to insure the health and safety of the general public, contracted technicians and all other individuals related to closure work being performed at the site. Bay is mindful of the importance of developing a health and safety plan that not only describes a number of safety measures but one that takes into account possible situations that may arise during closure. The plan will instill a combination of safe behavior and safety measures at the outset which will prevent accidents from happening in the first place.

Bay's concern for safety is not simply limited to chemical hazards but also physical hazards associated with the decontamination, decommissioning or demolition of facility systems, equipment and structures. As such Bay will implement a comprehensive safety plan and regimented approach to insuring that all elements of the plan are followed and enforced.

The Bay health and safety plan will also emphasize specific prevention measures as well as detailed contingency plans that would be implemented in the unlikely event of a release or spill. Most importantly the health and safety plan will put in place the mechanisms to insure that we have an immediate capability to mitigate an event should one occur during closure activities.

2. Regulatory Compliance Teaming

Bay views cooperative regulatory oversight throughout the closure process as a critical component to achieving the goals and objectives stated above. Bay believes that working in an open and cooperative manner with regulatory oversight takes advantage of real time technical and regulatory expertise, solutions, suggestions and insight to important issues, and enables a clear path to completing required actions in the most time and cost effective manner.

3. Competency of Performance

No matter how well the Closure Plan is written it is only as good as the employment and utilization of competent management, labor, contractors, and any disposal, scrap or material vendors and suppliers. To this end Bay will pre-qualify its closure management team, labor force and outside contractors, vendors, suppliers and service entities. Pre-qualification will be based on individual and collective expertise, past experience, compliance history, safety records and behavior, and performance skills commensurate with all facets of plan expectations.

4. Beneficial Re-Use and/or Scrap Metal



The purpose of this objective is two fold. First, it is understood that the Facility provided unique solvent and antifreeze recycling service for local, state wide and regional communities. Given the lack of similar processing capacity nationwide, some of Facility processing systems and related equipment are in high demand at similar hazardous waste processing facilities, most of which are outside the State of

California. Bay therefore will offer, to qualified purchasers, selected hazardous waste processing systems and equipment which would be used for the same function.

The second purpose of this objective is to reduce the volume of contaminated materials which would otherwise go to landfill or incineration.

Using the “beneficial use” objective as a guide, this plan will incorporate three levels of safe and environmentally sound methods for determining which systems and equipment are suitable for beneficial reuse. It will also provide a criteria for qualifying prospective purchasers and end use restrictions. An outline for establishing the reuse and scrap metal criteria is as follows:

a. Equipment and System resale, Same Industry:

EPA permitted and licenses owner/operators/ of hazardous waste facilities and/or EPA registered hazardous waste generators at other locations throughout the United States to be used only for processing hazardous materials or regulated waste.

b. . Equipment and System Scrap Metal (Title 22 CCR 66260.10):

For any remaining systems, equipment and structures not falling under the reuse parameters explained in a, but are found suitable only for scrap metal, Bay will be offering only non porous metallic materials that can be verifiably decontaminated to below acceptable clean up standards for scrap. This can include both thoroughly decontaminated hazardous waste processing equipment and any non processing related metal materials located within the facility.

(Note: Non chemical and waste related items such as vehicle repair shop equipment, non waste storage shed, certain testing equipment and office furnishings do not fall under this criterion and will be sold as secondary market commodities.)

The plan also explains how these purchased systems and equipment will be appropriately cleaned, disassembled, and packaged to insure the safe, compliant and verifiable shipment directly to the purchaser's location. Bay will offer for sale only to pre-screened, registered, and reputable businesses.

Finally, the plan requires that all equipment shipped to any qualified purchaser be inventoried and tracked to insure everything shipped have, in fact, been received.

5. Mitigation of Community Impacts

Bay recognizes that the implementation of closure activities will have certain impact or potential impact to the community. These various impacts will be addressed, and planned out, prior to the commencement of work. They are as follows:

a. Off Site Waste and Material Shipping

Off-site waste and material shipments include closed box vans, tankers, flatbeds, and drop boxes. Commercial trucks and vehicles leaving the Facility will be routed only along Bay Rd to University Ave North to Bayshore Expressway or south to US-101.

Because Bay is aware of the many schools in the area it has been determined that hazardous waste shipments will not be scheduled between 7:00am and 9:00am or between 3:00pm and 4:00pm in order to allow children uninterrupted access to and from school.

b. Noise and Odors

Noises generated from the disassembly of metal frame works would be infrequent but could be loud enough to hear from a distance of ¼ mile away. A number of business and residential areas along Pulgas, Demeter, Weeks and Illinois Streets fall within this radius. Although infrequent, sudden noises from a closure site might be alarming if the community is not made aware of closure activities.

Minor odors may also be generated from metal cutting, or certain wastewater treatment tank cleaning. Although any odors generated during such activities

would not be considered an exposure hazard, unfamiliar odors may cause concern. The plan calls for odor control methods during such activities to include limiting work when prevailing winds are too strong or water suppression during certain cleaning operations.

Prior to, and during all closure activities Bay intends to work cooperatively with the DTSC and community stakeholders to address and mitigate, to all reasonable extent possible, noise and odors generated from closure activities.

6. Sampling for the Presence of Contamination on Surfaces

The closure plan incorporates a detailed and comprehensive sampling plan (SAP) that will explain exactly what and how sampling and testing will be conducted to determine the presence of hazardous substances on a variety of structural surfaces. Sampling locations and testing methods described in the SAP are intended to determine the effectiveness of decontamination and equally important, to determine whether a particular area of surface or subsurface media is contaminated and, if so, what the appropriate method for disposal may be.



7. Hazardous and State Regulated Waste Disposal

The plan presents a number of disposal options for equipment, materials and constituents found to be hazardous. This would include heavily contaminated equipment, tanks, piping, concrete or structures. In addition, wastes generated from closure activities such as decontamination rinse water and waste collection solutions would also be handled under one or more of the following disposal options

- a. Authorized hazardous waste incineration, fuels blending/burning, or land disposal facility
- b. Authorized wastewater treatment facility
- c. California regulated waste landfill
- d. California regulated non-RCRA oil/water recycling facility

8. Inventory Tracking and Accountability

This plan incorporates a unique computerized inventory list and tracking system designed to accomplish the objective of insuring that all systems, equipment and materials are properly identified, processed correctly and compliantly disposed of. The inventory list includes components related to all equipment and tanks as well as containments and materials used for processing, managing, and storing hazardous and regulated wastes.

This tracking and accountability system is essential to insure that all equipment and materials are handled and disposed of in accordance to the plan. The system can be audited at any time during closure activities by comparing completed steps outlined in the system to the actual disposition stated on an equipment and material tracking card which will be attached to each item at the outset of closure.

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1. PLAN INTRODUCTION

1.1. Closure Plan Background

This Closure Plan describes the procedures which Bay Enterprises (Bay) will follow during closure activities associated with the hazardous waste management units at its East Palo Alto facility.

Closure activities will be performed in accordance with 22 CCR 66264, Article 7, section 66264.178, and section 66264.197.

1.2. Operational Principles

Safety and Environmental Stewardship will be the two primary principles guiding Bay during closure activities.

It is understood that safety to human health and the environment will be the foremost consideration during the planning and related implementation of all activities performed throughout the course of the project. A concise and comprehensive site specific Health & Safety plan will be developed, managed and adhered to during all aspects of the project. All operational decisions will be developed and managed using safe and regulatory compliant guidelines as a driving initiative.

The closure of the former Romic facility is, by its very nature, an environmental project. During the planning and operational implementation of the project the ultimate goal will be to restore the facility to a usable and productive condition. It is also the intent of Bay to utilize various types of environmentally sound technologies and approaches during the execution of the project. Bay will scrap, reclaim and re-sell as much of the equipment and materials residing at the site as feasibly possible.

1.3. Closure Plan Preparation

This closure plan was developed for Bay Enterprises by Clean Harbors Environmental Services and follows the guidelines as outlined in the DTSC's Permit Writer's Instructions for Closure document.

1.4. Closure Plan Modification

As a result of the requirement for the premature closure of the former Romic East Palo Alto facility, Bay is submitting a second revision to the original site specific closure plan dated 09/20/1989. The first revision to the original plan was provided to the DTSC on October 26, 2007. Please consider this statement as an official notification of the second revision to the original closure plan mentioned above.

In addition, during the course of closure activities, the need may arise to amend specific portions of the modified Closure Plan. This requirement for plan modification may be a result of any of the following conditions:

1. Unforeseen changes in operational plans which may affect the original requirements of the Closure Plan
2. Unanticipated events or conditions which may arise during the activities related to partial or final closure of the Closure Plan
3. Changes in regulations that affect facility closure
4. Changes in the parameters of the Closure Plan at the request of the DTSC.

If any of the first three events takes place, Bay will submit to the DTSC, at least sixty days prior to implementation, a request to modify the original Closure Plan.

If the DTSC requests formal changes in the original Closure Plan prior to project closure, Bay will submit a Closure Plan modification within thirty days of the DTSC's request.

2. FACILITY INFORMATION

2.1. Facility Identification

Facility Name:	Former Romic East Palo Alto Facility
EPA ID Number:	CAD 009 452 657
Facility Address:	2081 Bay Road, East Palo Alto, California
Mailing Address:	2081 Bay Rd, East Palo Alto, CA 94303
Contact Person:	Wayne Kiso
Facility Operator:	Bay Enterprises
Facility Owner	Bay Enterprises

2.2. Facility Purpose

The Facility was designed to accommodate a need for commercial hazardous waste treatment and related storage and was primarily engaged in resource recovery. The Facility was originally permitted to transfer, treat, and store EPA and California hazardous wastes. Industrial wastes were shipped to the Facility for recycling and treatment. These industries were varied and included, but were not limited to the following:

- Dry cleaning
- Printing
- Electronics
- Aerospace
- Paint
- Automotive

In addition, the Facility received household hazardous waste (e.g., motor oil, paints, cleaners, etc.) from household waste collection events. Many of these events took place in and around the San Mateo County and throughout the City and County of San Francisco.

Specific examples of wastes types that were managed at the Facility included halogenated and non-halogenated solvents, freon and freon substitutes, waste oils, sludge's, oxidizers, corrosive wastes, resins/adhesives, debris/solids, soils, wastewaters, resin bed media, paints, aerosols, batteries, fluorescent tubes, and chemical lab packs.

Detailed information regarding incoming waste streams managed at the Facility can be found in Section II of the facility's hazardous waste facility permit application. The Facility did not accept the following types of hazardous waste for treatment or processing:

- Radioactive wastes
- Explosives
- Wastes containing polychlorinated biphenyls (PCBs) in excess of 50 parts per million (ppm)
- Etiological wastes
- Pathogenic wastes
- Organophosphates

The facility received, stored, and processed waste in either bulk loads (e.g., tanker trucks, roll-off boxes, etc.) or containers (e.g., 55-gallon drums, totes, etc.). The wastes were transported to the Facility by properly licensed transporters. Wastes received at the Facility were sampled and analyzed to evaluate the chemical and physical properties of each waste stream, and to match the conformity of the load with pre-submitted waste profile information.

All containers manifested to the facility were inspected and assigned a unique tracking number which was placed on the container using a bar code label. Once received, the containers were temporarily placed in a designated storage area prior to transfer to the assigned process area. The storage areas were equipped with secondary containment

During operation the Facility reclaimed, recycled, treated, and stored hazardous waste using the following management processes:

2.2.1. Waste Management Processes

Solvent Recycling: The distillation of used thinners and solvents (e.g., lacquer thinner, methanol, acetone, mineral spirits) to achieve a reclaimed solvent product for resale/reuse.

Ethylene Glycol Recycling: The distillation of used ethylene glycol (e.g., antifreeze) to achieve a useable product for resale/reuse.

Fuel Blending: The mixing of impure waste materials of a sufficiently high heat content to produce a consistent alternative fuel (e.g., > 5,000 BTU) for use in off-site cement kilns.

Liquefaction: Blending of solid and semi-solid materials with liquid material (e.g., diesel fuel, waste solvent) to achieve a liquid consistency for use in the fuel blending process (see above).

Wastewater Treatment: Treatment of onsite or off-site generated wastewaters that were contaminated with organic and inorganic contaminants. Various aqueous treatment techniques were used including distillation processes, biological treatment, filtering and ultra-violet oxidation to meet local sewer agency discharge limits.

Neutralization: Adjustment of caustic and acidic wastes to achieve a neutral pH. Neutralized waste streams may have undergone secondary industrial wastewater treatment to remove organic contaminants.

Debris Shredding: Processing contaminated solid materials through an industrial shredder to facilitate transportation for off-site disposal.

Off-Site Transfer: Waste shipped off-site for treatment/disposal without on-site treatment.

2.2.2. Miscellaneous Management Processes

Small Container Management: Bay received, re-packed, and/or consolidated small quantity chemicals (e.g., outdated chemicals, lab packs) for onsite management using one or more Facility-approved processes.

2.2.3. Exempt Hazardous Waste Activities

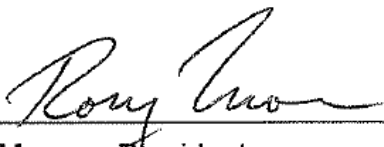
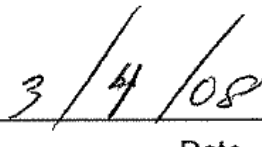
Ten-Day Transfer: Waste manifested to other facilities was staged in original containers (for less than ten days) during the course of transportation. This activity is exempt from permitting requirements under 22 CCR 66263.18.

Universal Waste Handling:* Universal wastes as defined by 22 CCR 66273.9 and HSC 25201.16 (e.g. fluorescent light bulbs, thermostats, batteries, aerosol cans, cathode ray tubes) were accepted at the Facility for handling on a universal waste tracking document for management under 22 CCR sections 66273.30 through 66273.40. This activity is exempt from Part B permitting requirements under 22 CCR 66270.1(c)(2)(E). Note that aerosol cans, although received as Universal Waste, might also have been treated by the Facility as hazardous waste.

- Roimic notified the Department of Toxic Substances Control in July 2004 of its intent to be a universal waste handler.

2.3. Closure Plan Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Rory Moran President Date
Romic Environmental Technologies Corporation

3. FACILITY LOCATION INFORMATION

Detailed facility location information can be found in the former Romic East Palo Alto Facility permit renewal application. Facility location information is summarized below.

The Facility is located at 2081 Bay Road in the City of East Palo Alto, San Mateo County, California, approximately 1/2-mile west of San Francisco Bay. The facility consists of an irregularly shaped parcel, approximately 14 acres in area. Hazardous waste operations at the Facility occurred on approximately 1.8 acres of the 14 acres.

Hazardous waste operations were conducted primarily on the central portion of the Facility, which included warehouses for storing and handling containerized waste, tank farms, and distillation processing equipment, a fuel blending operations area, and a field services chemical warehouse. The wastewater treatment plant is located on the south-central portion of the property. The administration, laboratory, maintenance buildings, and parking lots are also located on the southern portion of the property. The site is paved with concrete with a narrow strip of unpaved area along the perimeter.

The Facility and adjacent properties are zoned by the city of East Palo Alto for both Light and Heavy Industrial activities. The Facility is bordered to the north by a salvage yard; to the east by vacant land owned by the Mid-Peninsula Regional Open Space District; to the southeast and southwest by a salvage yard; to the south by Bay Road and beyond Bay Road an electrical substation and a former chemical manufacturer (facility now vacant).

The land use beyond these industrial areas is mixed commercial and residential. The residences are located primarily to the south and west, approximately 1/4-mile from the Facility.

3.1. Setting

The facility topography is relatively flat with downward slope to the east and southeast toward the saltwater marshes and wetlands. Engineered tidal sloughs are located on the east and north property boundaries. These sloughs drain into the San Francisco Bay. The elevation of the eastern portion of the Facility, including the adjacent land that was purchased in 1983, the driveway area, and the neighboring property have been raised approximately 2 feet above the historical 100-year floodplain level.

Attachment B Figure 1 depicts the Facility location, area topography, and relative proximity to surface water bodies on a United States Geological Survey (USGS) topographic map. Attachment B Figure 2 shows the Facility layout, including the location of treatment and storage areas, each building and its use, perimeter access controls (e.g., fences, gates), and the location of the Facility's former wastewater discharge points.

3.2. Flood Plain

The Facility is located within the boundaries of a 100-year floodplain, as indicated in the Flood Insurance Rate Map of the Federal Emergency Management Agency (FEMA), County Panel No. 060708 0001 B, dated August 23, 1999 (see Figure B-7, Flood Plain Designation Map). According to the FEMA map, the 100-year flood level at the Facility is 8.0 feet above mean sea level (amsl).

A surveyors loop study was conducted by Bay to determine compliance with the location standards for hazardous waste facilities related to floodplains specified in 22 CCR 66264.18(b) and 66270.14(b)(11)(B), (C), (D). Portions of the Facility perimeter and the Facility were found to be below the 8.0-foot floodplain elevation (see Attachment B Figure 8). However, as the Bay facility is located outside of ZONE VE (defined by FEMA as coastal flood with velocity hazard (wave action); base flood elevation determined), the floodwaters will have low velocities, and a 100-year flood would not result in rapid incursion of flood waters onto the facility.

3.3. Drainage

Storm water that collects within secondary containment units that have not been verified decontaminated will be pumped to storage tanks for subsequent shipment to an authorized offsite facility. Storm water that falls on most facility areas outside of such containment units collects in low point sumps and is subsequently discharged to the tidal slough north of the facility under the terms of the California General Permit for Storm Water Discharge from Industrial Activities. The locations of these storm water catch basins, secondary containment areas, parking lot and driveway drainage, drainage to the facility low point, roof drainage to the sloughs, covered areas that discharge to the conveyance system, and storm water discharge points are shown on Attached B Figure 9.

Industrial waste water is no longer discharged to the East Palo Alto Sanitary District. The facility does not maintain any intake piping as all materials are transported to the site by vehicle. Additionally, there are no known injection or withdrawal wells onsite.

3.4. Rain Data

Rainfall data was obtained from the National Oceanic and Atmospheric Administration's 1973 Precipitation-Frequency Atlas of the Western United States. The maximum 25-year, 24-hour storm event was determined to be approximately 3.5 inches.

3.5. Wind Rose

The prevailing wind direction in the vicinity of the Facility is primarily from the west and northwesterly directions. The data were obtained from the National Climatic Data Center's Moffett Field Naval Air Station in Mountain View, California and the Bay Area Air Quality Management District's meteorological station in San Carlos, California. These stations are 5.7 miles to the southeast and 7.3 miles to the northwest, respectively (see Attachment B Figure 10a). The wind direction data are presented as two annual wind roses in Attachment Figure 10b and 10c. The wind direction data are representative of the Facility location; however, wind speeds may be higher at the Facility under certain conditions due to the Bay.

3.6. Geology and Hydrogeology

The following description of site geology and hydrogeology was obtained from the Corrective Measures Study Report (Conor Pacific/EFW, December 17, 1999) and to the Draft Pilot Study Work Plan (ARCADIS Geraghty & Miller, September 2000). These documents were prepared to address soil and groundwater contamination that occurred onsite through historical releases of solvent waste materials and recycled product.

Section 3.4.9 below provides additional details regarding the groundwater remediation activities at the Facility.

3.6.1. Geology

The Facility is located between 5 and 12 feet above mean sea level (amsl), approximately ½ mile west of the San Francisco Bay. The Facility borders tidal sloughs that flow into the Bay, and groundwater flow trends eastward toward the Bay. The site is capped by up to 8 feet of heterogeneous fill material, which is underlain by an estimated 500 to 1,000 feet of alluvial and estuarine sediments. A clay layer up to 10 feet thick underlies the surficial fill to approximately 1 to 11 feet MSL (5 to 10 feet below ground surface [bgs]). Underlying this clay is a sand and gravel unit up to 9 feet thick in the interval between 5 and 10 feet MSL. The fill material is underlain by three discontinuous, water-bearing zones (the A-, B-, and C-zones) and is vertically separated by silt and clay units that are generally continuous laterally. A thick clay unit underlies the C-zone and separates it from a fourth water-bearing zone identified as the D-zone. (Attachment B Figures B-14a-c) depict cross section views of site geology.

3.6.2. Hydrogeology

Groundwater gradients in the A-, B-, and C- zones are relatively flat, at approximately 0.001, 0.001 and 0.002 ft/ft, respectively. A sand and gravel unit and the overlying sediment have been designated as the A-aquifer zone. A 9 to 21-foot thick clay layer underlies the A aquifer in the interval between –2 and –27 feet MSL. This clay separates the A and B aquifers and is known as the A/B aquitard.

The B aquifer underlies the A/B aquitard and consists of 5 to 13 feet of sands and silts in the interval between –17 and –30 feet MSL. The B aquifer is underlain by up to 19 feet of clay with minor interbedded silt in the interval between –30 and –49 feet MSL. This low-permeability zone is known as the B/C aquitard.

Beneath the B/C aquitard lays the C aquifer. This aquifer zone consists of up to 14 feet of poorly graded sands, silty sands, and minor amounts of clay in the interval between –49 and –63 feet MSL at the location of well RW-7. At well RW-18C, the C aquifer consists of approximately 15 feet of poorly graded sands, silty sands and clayey sands in the interval between –60 and –80 feet MSL. An 84-foot thick clay zone with minor interbedded fine sands stringers (cumulative thickness of sands is approximately 5 feet) underlies the C aquifer. This low permeability zone is known as the C/D aquitard.

The D aquifer underlies the C/D aquitard and consists of approximately 8 to 10 feet of sand and gravel interbedded with clay in the interval between approximately –156 and –176 feet MSL at well RW-16D. The D-aquifer zone is underlain by approximately 13 feet of clay and sandy clay in the interval between –176 and –192 feet MSL. Attachment B Figures 15a-c depicts ground water elevations of the A, B, and C aquifers.

3.7. Groundwater Remediation Activities

Several groundwater monitoring wells are located at the Facility. These wells are associated with the groundwater investigation and corrective actions being conducted at the Facility under a USEPA-administered RCRA Section 3008(h) Consent Order.

Previous investigations at the Facility identified chemicals of concern (COCs) in the soil and groundwater from three primary source areas: the central processing area, the

former pond area beneath the drum storage warehouse, and an off-site area southwest of the Facility. Soil and groundwater contamination occurred through past releases of solvent waste materials and recycled pure phase product. The releases resulted from discontinued historical practices resulting in spills, tank and container overfills, flooding events, breaks in transfer pipes and waste materials leaching through the former wastewater receiving ponds.

The A-, B-, and C- groundwater zones are contaminated with volatile and semi-volatile organic compounds (VOCs and SVOCs). The extent of site groundwater contamination is depicted on Attachment B Figures 16a-e. Elevated concentrations of VOCs, SVOCs, and metals are present in soil within the central processing area and former pond area. Chlorinated VOCs (CVOCs) are the primary COCs based on concentration, extent of contamination, and mobility in groundwater and soil gas.

Groundwater contamination is currently being addressed through enhanced reductive dechlorination, an *in situ* biological treatment method. This method has been implemented as an interim remedial measure, and is proposed as a final remedy. The method entails the injection of an organic carbon mixture that serves as a food source for naturally occurring microbes. The mixture enhances the growth of the microbes and helps create conditions favorable to the degradation of the organic contaminants that are present in the groundwater.

Prior to implementation of the interim measure, groundwater was extracted and treated at the facility. Treated groundwater was discharged to surface waters and to the industrial waste water collection system.

3.8. Seismicity

The 1993 USGS report Geologic Map of the Palo Alto and Part of the Redwood Point 7-1/2 Quadrangles, San Mateo and Santa Clara Counties, California was reviewed to identify faults and lineations mapped in the vicinity of the Bay Facility (See Attachment Figure 11). No surface faults indicating Holocene movement are mapped within a 3,000 feet radius of the subject facility.

The USGS report does indicate that the subject facility is located within 200 feet of the eastern edge of the buried Redwood City Fault Zone (RCFZ). The location of the RCFZ is based on aeromagnetic and gravity geophysical anomalies and from subsurface drilling performed by others. The USGS have interpreted the fault to be basement related (of Mesozoic age) that is overlain by approximately 400 feet of Pleistocene and Holocene alluvial, estuarine and possible marine sediments. The USGS interpreted that the buried RCFZ has ceased movement prior to Holocene time. Therefore, from available published reports, the subject facility is in compliance with the seismic guidelines of 22 CCR 66270.14(b)(11)(A).

4. FACILITY DESIGN

4.1. Inventory of Units and Equipment

Table 1 lists the units and equipment that was permitted and/or authorized by consent order or non-authorized non-permitted equipment and structures and will be processed and removed from the site in accordance with this closure plan. A detailed explanation of each unit name, location, activity type and activity description will be outlined in section 5.2.3. HWMU Unit Description and Decontamination Criteria.

**Table 1:
Inventory of HWMU and Equipment**

Equipment ID	Location	Unit #	Dimensions/Volume	Material of Construction	Classification ¹	Old ID	Volume Source
TANKS							
Tank 1	Tank Farm A	8	4,200 gal	Stainless steel	N		Renewal Application
Tank 2	Tank Farm A	8	5,093 gal	Stainless steel	P		Permit
Tank 3	Tank Farm A	8	5,093 gal	Stainless steel	P		Permit
Tank 4	Tank Farm A	8	4,555 gal	Carbon steel	C		Renewal Application
Tank 5	Tank Farm A	8	6,360 gal	Stainless steel	P		Permit
Tank 6	Tank Farm A	8	5,093 gal	Stainless steel	P		Permit
Tank 7	Tank Farm A	8	5,093 gal	Stainless steel	P		Permit
Tank 8	Tank Farm A	8	4,555 gal	Carbon steel	C		Renewal Application
Tank 9	Tank Farm A	8	6,360 gal	Stainless steel	P		Permit
Tank 10	Tank Farm A	8	5,093 gal	Stainless steel	P		Permit
Tank 11	Tank Farm A	8	5,093 gal	Stainless steel	P		Permit
Tank 12	Tank Farm A	8	4,555 gal	Carbon steel	C		Renewal Application
Tank K	Tank Farm A	8	9,230 gal	Carbon steel	P		Permit
Tank L	Tank Farm A	8	9,230 gal	Carbon steel	P		Permit
Tank M	Tank Farm A	8	9,230 gal	Carbon steel	P		Permit
Tank R-91	Tank Farm B	9	4,743 gal	Carbon steel	P		Permit
Tank R-92	Tank Farm B	9	4,743 gal	Carbon steel	P		Permit

Equipment ID	Location	Unit #	Dimensions/Volume	Material of Construction	Classification ¹	Old ID	Volume Source
Tank R-93	Tank Farm B	9	4,743 gal	Carbon steel	P		Permit
Tank R-94	Tank Farm B	9	4,743 gal	Carbon steel	P		Permit
Tank R-95	Tank Farm B	9	4,743 gal	Carbon steel	P		Permit
Tank 44	Tank Farm L	10	8,800 gal	Stainless steel	C		Renewal Application
Tank 45	Tank Farm L	10	8,800 gal	Stainless steel	C		Renewal Application
Tank 46	Tank Farm L	10	8,800 gal	Stainless steel	C		Renewal Application
Tank 47	Tank Farm L	10	8,800 gal	Stainless steel	C		Renewal Application
Tank 48	Tank Farm L	10	4,000 gal	Stainless steel	N		Renewal Application
Tank 49	Tank Farm L	10	4,000 gal	Stainless steel	N		Renewal Application
Tank 50	Tank Farm L	10	4,000 gal	Stainless steel	N		Renewal Application
Tank T26	Tank Farm H	14	8,800 gal	Stainless steel	C		Renewal Application
Tank T27	Tank Farm H	14	7,138 gal	Stainless steel	C		Renewal Application
Tank T28	Tank Farm H	14	8,800 gal	Stainless steel	C		Renewal Application
Tank T29	Tank Farm H	14	8,800 gal	Stainless steel	C		Renewal Application
Tank T30	Tank Farm H	14	8,800 gal	Stainless steel	C		Renewal Application
Tank T31	Tank Farm H	14	8,800 gal	Stainless steel	C		Renewal Application
Tank T83	Tank Farm I	15	11,655 gal	Carbon steel	P	78	Renewal Application
Tank T84	Tank Farm I	15	11,655 gal	Carbon steel	P	79	Renewal Application
Tank T85	Tank Farm I	15	11,655 gal	Carbon steel	P	80	Renewal Application
Tank T101	Tank Farm I	15	11,655 gal	Carbon steel	P	82	Renewal Application
Tank T102	Tank Farm I	15	11,655 gal	Carbon steel	P	83	Renewal Application
Tank T103	Tank Farm I	15	11,655 gal	Carbon steel	P	85	Renewal Application
Tank T104	Tank Farm I	15	11,655 gal	Carbon steel	P	84	Renewal Application
Tank 32	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank 33	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank 34	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank 35	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank 36	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank 37	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank 38	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank 39	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank 40	Tank Farm MNO	16	8,800 gal	Stainless steel	H		Renewal Application
Tank 41	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank 42	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application

Equipment ID	Location	Unit #	Dimensions/Volume	Material of Construction	Classification ¹	Old ID	Volume Source
Tank 43	Tank Farm MNO	16	8,800 gal	Stainless steel	C		Renewal Application
Tank AES-1	Tank Farm Q	17	11,160 gal	Stainless steel	C		Renewal Application
Tank AES-2	Tank Farm Q	17	11,160 gal	Stainless steel	C		Renewal Application
Tank AES-3	Tank Farm Q	17	11,160 gal	Stainless steel	C		Renewal Application
Tank AES-4	Tank Farm Q	17	11,160 gal	Stainless steel	C		Renewal Application
Tank 61	Tank Farm Q	17	13,113 gal	Stainless steel	C		Renewal Application
Tank 64	Tank Farm Q	17	19,400 gal	Carbon steel	C		Renewal Application
Tank 65	Tank Farm Q	17	19,400 gal	Carbon steel	C		Renewal Application
Tank 71	Tank Farm Q	17	28,000 gal	Carbon steel	H		Renewal Application
Tank 75	Tank Farm Q	17	12,700 gal	Stainless steel	C		Renewal Application
Caustic Reboiler (RCC)	Production Area	27	2,160 gal	Monel	H		Renewal Application
Stainless Kettle (SSK)	Production Area	27	1,618 gal	Stainless steel	H		Renewal Application
Water Wash Tank (WWT)	Production Area	27	3,305 gal	Carbon steel	H		Renewal Application
37" Reboiler (Reb-37)	Tank Farm G	13	6,100 gal	Stainless steel	P		Renewal Application
49" Reboiler (Reb-49)	Tank Farm G	13	15792 gal	Stainless steel	P		Renewal Application
35" Reboiler (Reb-35)	Tank Farm I	15	4,670 gal	Stainless steel	P		Renewal Application
36" Reboiler (Reb-36)	Tank Farm I	15	7,500 gal	Stainless steel	P		Renewal Application
42" Reboiler (Reb-42)	Tank Farm I	15	9,400 gal	Stainless steel	P		Renewal Application
43" Reboiler (Reb-43)	Tank Farm I	15	6,996 gal	Stainless steel	P		Renewal Application
48" Reboiler (Reb-48)	Tank Farm I	15	9,300 gal	Carbon steel	P		Renewal Application
Tank 24	Tank Farm R	10	3,400 gal	Carbon steel	H		Renewal Application
Tank 25	Tank Farm R	10	3,400 gal	Carbon steel	H		Renewal Application
Vac Pot 24 (V-24)	Production Area	24	1,525 gal	Carbon steel	P		Renewal Application
Vac Pot 25 (V-25)	Production Area	24	2,234 gal	Carbon steel	P		Renewal Application
PT-1	Liquefaction	28	1,160 gal	Carbon steel	H		Renewal Application
HTU	Boiler Area	25	1,127 gal	Carbon steel	H		Renewal Application
HTU-1	Boiler Area	25	474 gal	Carbon steel	H		Renewal Application
HTU-2	Boiler Area	25	330 gal	Carbon steel	H		Renewal Application
TW-1	Truck Wash	34	1,700 gal	HDPE	H		Renewal Application
T-13	Bio System	18	25,000 gal	Carbon steel	P		Permit
B-2	Bio System	18	25,000 gal	Carbon steel	P		Permit
B-3	Bio System	18	25,000 gal	Carbon steel	P		Permit
B-3A	Bio System	18	25,000 gal	Carbon steel	P		Permit
B-4	Bio System	18	16,000 gal	Carbon steel	P		Permit

Equipment ID	Location	Unit #	Dimensions/Volume	Material of Construction	Classification ¹	Old ID	Volume Source
B-4A	Bio System	18	16,000 gal	Carbon steel	P		Permit
B-5	Bio System	18	5,000 gal	Carbon steel	P		Permit
B-6	Bio System	18	5,000 gal	Carbon steel	P		Permit
B-6A	Bio System	18	5,000 gal	Carbon steel	P		Permit
B-7	Bio System	18	5,000 gal	Carbon steel	P		Permit
B-8	Bio System	18	375 gal	Stainless steel	C		Renewal Application
R96	Tank Farm D	11	11,750 gal	Carbon steel	P		Permit
R97	Tank Farm D	11	11,750 gal	Carbon steel	P		Permit
NT-1	Tank Farm J	19	580 gal	Rubber lined CS	P		Renewal Application
NT-2	Tank Farm J	19	580 gal	Rubber lined CS	P		Renewal Application
NT-3	Tank Farm J	19	580 gal	Rubber lined CS	P		Renewal Application
Tank 16	Tank Farm G	13	1,962 gal	Stainless steel	N		Renewal Application
Tank 17	Tank Farm G	13	1,962 gal	Stainless steel	N		Renewal Application
Tank 18	Tank Farm G	13	535 gal	Stainless steel	N		Renewal Application
Tank 19	Tank Farm G	13	1,962 gal	Stainless steel	N		Renewal Application
Tank 20	Tank Farm G	13	1,962 gal	Stainless steel	N		Renewal Application
Tank 21	Tank Farm G	13	1,895 gal	Carbon steel	N		Renewal Application
Tank 25	Tank Farm Q	17	4,600 gal	Carbon steel	N		Renewal Application
Tank 60	Tank Farm Q	17	13,000 gal	Carbon steel	N		Renewal Application
Tank 62	Tank Farm Q	17	13,600 gal	Carbon steel	N		Renewal Application
Tank 63	Tank Farm Q	17	20,000 gal	Carbon steel	N		Renewal Application
Tank 66	Tank Farm Q	17	24,823 gal	Carbon steel	N		Renewal Application
Tank 67	Tank Farm Q	17	20,616 gal	Carbon steel	N		Renewal Application
Tank 68	Tank Farm Q	17	30,000 gal	Carbon steel	N		Renewal Application
Tank 69	Tank Farm Q	17	24,823 gal	Carbon steel	N		Renewal Application
Tank 70	Tank Farm Q	17	126,904 gal	Carbon steel	N		Renewal Application
Tank 72	Tank Farm Q	17	2,000 gal	Carbon steel	N		Renewal Application
Tank 73	Tank Farm Q	17	11,990 gal	Carbon steel	N		Renewal Application
Tank 74	Tank Farm Q	17	11,990 gal	Carbon steel	N		Renewal Application
Tank 76	Tank Farm Q	17	27,637 gal	Carbon steel	N		Renewal Application
Tank 77	Tank Farm Q	17	27,088 gal	Carbon steel	N		Renewal Application

Equipment ID	Location	Unit #	Dimensions/Volume	Material of Construction	Classification ¹	on S-102	Old ID	Volume Source
PROCESS EQUIPMENT								
Sand Filter SF-1	Bio System	18	475 gal	FRP	H			Renewal Application
Sand Filter SF-2	Bio System	18	475 gal	FRP	H			Renewal Application
Carbon Bed	Bio System	18	414 gal	Carbon steel	P	Added in permit mod		Renewal Application
Ion Exchange Bed(s)	Bio System	18	640 gal	Carbon steel	P	Added in permit mod		Renewal Application
Trojan UV System	Bio System	18	-	Stainless steel	N			
distillation column 24 inch	Production Area	23	350 gal	Stainless steel	P	Y		
distillation column 32 inch	Production Area	23	630 gal	Stainless steel	P	Y		
distillation column 35 inch	Production Area	23	790 gal	Stainless steel	P	Y		
distillation column 36 inch	Production Area	23	790 gal	Stainless steel	P	Y		
distillation column 37 inch	Production Area	23	790 gal	Stainless steel	P	Y		
distillation column 42 inch	Production Area	23	1060 gal	Stainless steel	P	Y		
distillation column 43 inch	Production Area	23	1060 gal	Stainless steel	P	Y		
distillation column 48 inch	Production Area	23	1400 gal	Stainless steel	P	Y		
distillation column 49 inch	Production Area	23	1400 gal	Stainless steel	P	Y		
24" Reboiler (Reb-24)	Production Area	23	830 gal	Carbon steel	P	Y		Renewal Application
32" Reboiler (Reb-32)	Production Area	23	3,647 gal	Stainless steel	P	Y		Renewal Application
Caustic column	Production Area	23 & 27	NA	Stainless steel	P	Y		
thin film evaporator #1	Production Area	26	150	Stainless steel	P	Y		
thin film evaporator #2	Production Area	26	190	Stainless steel	P	Y		
thin film evaporator #3	Production Area	26	190	Stainless steel	P	Y		
Debris Shredder	Liquefaction Truck Wash	31	200 cu ft	Steel	H			
tanker washing unit	Station	34	2000 gal	Steel	H			
		34, 35,						
Non-contained Concrete Pads	Facility	36, 37	6.5 acres	Concrete				
Misc. Processing Pumps –	Facility	43	NA	PVC/Aluminum	H			
CONTAINMENT UNITS								
Tank Farm A	Tank Farm A	8	60.8' l x 42.6' w x 2.3' d	Concrete	P			Renewal Application
Tank Farm B	Tank Farm B	9	60.8' l x 14.8' w x 2.4' d	Concrete	P			Renewal Application
Tank Farm C	Tank Farm C	10	30' l x 27.5' w x 2.2' d	Concrete	P			
Tank Farm D	Tank Farm D	11	26.7' l x 14.7' w x 2.6 d	Concrete	P			

Equipment ID	Location	Unit #	Dimensions/Volume	Material of Construction	Classification ¹	on S-102	Old ID	Volume Source
Tank Farm G	Tank Farm G	13	39.5' l x 19.5' w x 1.4' d	Concrete	P			Renewal Application
Tank Farm H	Tank Farm H	14	40' l x 24.6' w x 3.3' d	Concrete	C			Renewal Application
Tank Farm I	Tank Farm I	15	94' l x 39' w x 1.2' d	Concrete	P			Renewal Application
Tank Farm J	Tank Farm J	19	18.4' l x 8.5' w x 1.3' d	Treated Concrete	P			Renewal Application
Tank Farm K	Tank Farm K	18	92.2' l x 45.4' w x 2.8' d	Concrete	P			Renewal Application
Tank Farm L	Tank Farm L	10	39.5' l x 29.8' w x 2.8' d	Concrete	C			Renewal Application
Tank Farm MNO	Tank Farm MNO	16	86.4' l x 24.6' w x 2' d	Concrete	C			Renewal Application
Tank Farm Q	Tank Farm Q	17	126' l x 74' w x 2.6' d	Treated Concrete	P			Renewal Application
Tank Farm R	Tank Farm R	10	30' l x 13.8' w x 2.2' d	Concrete	P			
Production Area	Production Area	23	5,250 sq ft	Concrete	P			Renewal Application
South Drum Storage Building	South Storage	2	173' l x 69.5' w x 0.6' d	Treated Concrete	P			Renewal Application
North Drum Storage Building	North Storage	1	99' l x 49' w x 0.6' d	Treated Concrete	P			Renewal Application
West Drum Storage Building # 1	West Storage #1	4	58' l x 29.3' w x 0.64' d	Treated Concrete	P			Renewal Application
West Drum Storage Building # 2	West Storage #2	5	64' l x 123' w x 0.69' d	Treated Concrete	P			Renewal Application
Sampling Area	Sampling Area	3	125' l x 74' w x 0.6' d	Treated Concrete	P			Renewal Application
Truck Wash Area	Truck Wash Area	34	73' l x 27' w	Treated Concrete	H			Renewal Application
Lab Pack Consolidation	West Storage #2	29	125' x 65' x 8"	Treated Concrete	P			
Drum Crushing Area	North Storage	33	99' l x 49' w x 0.6' d	Treated Concrete	H			Renewal Application
Drum and Debris Bldg	Drum & Debris	28	54' l x 37' w	Treated Concrete	H			Renewal Application
High temperature Unit	Tank Farm HTU	25	25' l x 25' w	Treated Concrete	H			Renewal Application

FORMER PERMITTED UNITS SINCE CLOSED

Tank A	Tank Farm C	5,800 gal	Carbon steel	P	Y	Permit
Tank B	Tank Farm C	5,800 gal	Carbon steel	P	Y	Permit
Tank C	Tank Farm C	5,800 gal	Carbon steel	P	Y	Permit
Tank D	Tank Farm C	5,800 gal	Carbon steel	P	Y	Permit
Tank E	Tank Farm C	5,800 gal	Carbon steel	P	Y	Permit
Tank F	Tank Farm C	5,800 gal	Carbon steel	P	Y	Permit
Tank G	Tank Farm C	5,800 gal	Carbon steel	P	Y	Permit
Tank H	Tank Farm C	5,800 gal	Carbon steel	P	Y	Permit
Tank I	Tank Farm C	5,600 gal	Carbon steel	P	Y	Permit
Tank J	Tank Farm C	5,600 gal	Carbon steel	P	Y	Permit

Equipment ID	Location	Unit #	Dimensions/Volume	Material of Construction	Classification ¹	on S-102	Old ID	Volume Source
PERMITTED PLANNED UNITS NEVER CONSTRUCTED								
Tank 78	Tank Farm S		NA					
Tank 79	Tank Farm S		NA					
Tank 80	Tank Farm S		NA					
Tank 81	Tank Farm I		3,000 gal	Carbon steel	P	Y		
Tank 82	Tank Farm S		NA					
Tank 86	Tank Farm I		1,500 gal	Carbon steel	P	Y		
Tank 87	Tank Farm I		200 gal	Carbon steel	P	Y		
Tank 88	Production Area		1,500 gal	Carbon steel	P	Y		
Tank 89	Production Area		200 gal	Carbon steel	P	Y		
Tank 106	Tank Farm T		NA					
Tank 107	Tank Farm T		NA					
Tank 108	Tank Farm T		NA					
Tank 109	Tank Farm T		NA					
Tank A-6	Tank Farm E		6,000 gal	Carbon steel	P	Y		Permit
Tank A-7	Tank Farm E		6,000 gal	Carbon steel	P	Y		Permit
Tank R-90	Tank Farm E		6,000 gal	Carbon steel	P	Y		
Tank N	Tank Farm E		8,000 gal	Carbon steel	P	Y		Permit
Tank O	Tank Farm E		8,000 gal	Carbon steel	P	Y		Permit
Tank R-96	Tank Farm D		6,000 gal	Carbon steel	P			Permit
Tank R-97	Tank Farm D		6,000 gal	Carbon steel	P			Permit
Tank A-1	Tank Farm F		2,000 gal	Poly	P	Y		Permit
Tank A-2	Tank Farm F		2,000 gal	Poly	P	Y		Permit
Tank A-3	Tank Farm F		2,000 gal	Poly	P	Y		Permit
Tank A-4	Tank Farm F		2,000 gal	Poly	P	Y		Permit
Tank A-5	Tank Farm F		2,000 gal	Poly	P	Y		Permit
Thin Film Evaporator #4	Production Area		150 gal	Stainless steel	P	Y		
Distillation Column 34"	Production Area		790 gal	Stainless steel	P	Y		
34" Reboiler (Reb-34)	Production Area		16500 gal	Stainless steel	P	Y		
Refrigerant Distillation	Tank Farm F		NA		P	Y		
Reverse Osmosis	Tank Farm I		800 gal		P	Y		
Ion Exchange Bed	Tank Farm F		300 gal		P	Y		
Regeneration Unit	Tank Farm F		300 gal		P	Y		
Electrodeposition Unit	Tank Farm F		600 gal		P	Y		

Equipment ID	Location	Unit #	Dimensions/Volume	Material of Construction	Classification ¹	on S-102	Old ID	Volume Source
Oil Filter	Tank Farm I		440 gal	Carbon steel	P	Y		
Consolidation Unit		30	NA					
Portable Aerosol Depressurization		32	NA					

¹ Classification: In descending order of priority:

P: Permitted

C: Authorized by Consent Order

H: Handled Hazardous Waste

N: Never Handles Hazardous Waste

Table 2 list's non-permitted equipment and structures located at the site.

Table 2
List of non-permitted equipment and structures

Description 1	Description 2	Location
office trailers – 3 ⁽¹⁾		Administration
Main Admin Office (1) ⁽¹⁾		Administration
Transportation Building # 6		Administration
AES Administration Building (2) ⁽¹⁾		Administration
Laboratory (3) ⁽¹⁾		Administration
500K Rain Tank		Bio System
ORT (Old Rain Tank)		Bio System
truck scale		Building 1
boom lift 80 foot Marklift		Facility
crane - out of service		Facility
scissor lift - needs new battery, outdated		Facility
front loader HUF		Facility
heat exchanger - stainless - spare unit good condition		Facility
sea containers - many, in various conditions		Facility
heat exchanger--316SS		Facility
SS Tank/reactor		Facility
In-Plant Tanker T-10		Facility
In-Plant Tanker T-12		Facility
In-Plant Tanker T-17		Facility
Skid Mounted Poly Tanks (8)		Facility
scrubber in field service area		Field Service
GAS CHROMATOGRAPH w / ELCD and PID detector ⁽¹⁾	GC-HP, ELCD	Lab
SAMPLE CONCENTRATOR AND LIQ AUTO SAMPLER ⁽¹⁾	TEKMAR DOHRMAN	Lab
GAS CHROMATOGRAPH -- ECD, w / controller/sampler ⁽¹⁾	HEWLETT PACKARD	Lab
GAS CHROMATOGRAPH -- ECD, w / controller/sampler ⁽¹⁾	HEWLETT PACKARD	Lab
GAS CHROMATOGRAPH -- TCD, w / controller/sampler ⁽¹⁾	HEWLETT PACKARD	Lab
GAS CHROMATOGRAPH -- TCD, w / controller/sampler ⁽¹⁾	HEWLETT PACKARD	Lab
GAS CHROMATOGRAPH -- TCD, w / controller/sampler ⁽¹⁾	HEWLETT PACKARD	Lab
GAS CHROMATOGRAPH -- FID, w / co ntroller/sampler ⁽¹⁾	HEWLETT PACKARD	Lab
KARL FISCHER TITRATOR ⁽¹⁾	AQUASTAR	Lab
CALORIMETER ⁽¹⁾	I K A WORKS	Lab
BARNSTEAD D.I. WATER UNIT ⁽¹⁾	BARNSTEAD	Lab
CYANIDE DISTILLATION UNIT ⁽¹⁾	ANDREW GLASS	Lab
MERCURY ANALYZER ⁽¹⁾	LEEMAN LABS	Lab
GAS CHROMATOGRAPH / MASS SPECTROMETER ⁽¹⁾	HEWLETT PACKARD	Lab
ION CHROMATOGRAPH ⁽¹⁾	DIONEX	Lab
LAB COOLING WATER SUPPLY ⁽¹⁾	VWR	Lab
nitrogen dewar - 1 owned (rest are leased)		Liquifaction
portable dock - 1 year old - \$12 K original price		Main Dock
plotter ⁽¹⁾		Maintenance
55 ton press ⁽¹⁾		Maintenance
Jet drill press jdp-125vs-3 ⁽¹⁾		Maintenance
Stak Pak -plasma machine ⁽¹⁾		Maintenance
Miller 250 syncrowave welder ⁽¹⁾		Maintenance
Miller 400ss Gold Star welder ⁽¹⁾		Maintenance
Air products DA250 welder ⁽¹⁾		Maintenance
Miller Dialarc HF-P welder ⁽¹⁾		Maintenance
Dialarc 250 welder ⁽¹⁾		Maintenance
Dry Rod welding rod oven ⁽¹⁾		Maintenance

2hp bench grinder ⁽¹⁾		Maintenance
Rigid 1224 threader ⁽¹⁾		Maintenance
Rigid 1822-1 threader ⁽¹⁾		Maintenance
Skat Blast sand blaster cabinet ⁽¹⁾		Maintenance
Ellis 3000 band saw ⁽¹⁾		Maintenance
10" bench grinder ⁽¹⁾		Maintenance
Lincoln V300 welder ⁽¹⁾		Maintenance
Paint spayer ⁽¹⁾		Maintenance
Maxstar 150 welder ⁽¹⁾		Maintenance
Miller 300xmt welder ⁽¹⁾		Maintenance
Lapmaster 12 lapping machine ⁽¹⁾		Maintenance
Victor track cutter ⁽¹⁾		Maintenance
Truck maintenance shop hoists etc. ⁽¹⁾		Maintenance
Sullair Compressor, 30 hp ⁽¹⁾		Maintenance
distillation column - size? Never installed ⁽¹⁾		Nitrogen Feed
stretch wrap machine ⁽¹⁾		North Storage
Cat Generator ⁽¹⁾		Powerhouse
Sullair Compressor, 40 hp (back-up)		Powerhouse
Sullair Compressor, 60 hp (main)		Powerhouse
vacuum pump - age unknown		Powerhouse
R1A		Sewer Tanks
R1B		Sewer Tanks
R1C		Sewer Tanks
CWT-1		N of North Bldg.
CWT-2		N of North Bldg.
Fixed Drum Crusher		North Bldg.
Portable Drum Crusher		North Bldg.
portable scales - 2		South Storage
Boilers – 2	Keeler/Cleaver Brooks	Unit 25 and 20
Dowtherm Heater		Maintenance
Cooling Towers	Marleys	Unit 11
fire system tanks with AFFF foam - 6 ⁽¹⁾		Warehouse

(1) "Equipment and structures that were not part of the permitted facility, were never regulated for hazardous waste management, and were not contaminated with off-site hazardous waste.

These items can be auctioned off prior to closure with following stipulations:

1.) Prior notification of removal will be presented to the DTSC and USEPA

2.) Closure Plan to include them in the Inventory of Equipment and Structures Authorized and Non-Authorized list with a statement indicating that "these items were never regulated for hazardous waste management, and were not contaminated with off-site hazardous waste and have been cleaned and sold/disposed off as of this date".

4.2. Waste Streams Processed at the Facility

The waste streams handled by the facility can be grouped into seven categories:

- Fuels
- Solvents for reclamation
- Antifreeze for ethylene glycol recovery
- Aqueous wastes
- Corrosive wastes for neutralization
- Organic solids
- Other wastes

The first four categories, in aggregate, represented the bulk of the wastes managed through the units other than container storage units and the acid-base neutralization tank system. The total permitted waste capacity for the facility is 139,205 gallons.

Fuels

This category is comprised of liquid and semi-solid wastes, organic in nature, exhibiting energetic (BTU) content. The following codes represent the bulk of the wastes in the fuels category:

RCRA Waste Codes: D001, D004-D011, D018, D019, D021-D030, D032-D036, D038-D040, F001-F005, F037, F038, U002

California Waste Codes: 211, 212, 213, 214, 221, 222, 223, 241, 251, 252, 331, 551, 611, 741

Solvents for Reclamation

This category is comprised of liquid wastes, organic in nature, with recoverable quantities of saleable solvents. The following codes represent the bulk of the wastes in the solvents for reclamation category:

RCRA Waste Codes: D001, D035, D039, F001-F005

California Waste Codes: 211, 212, 213, 214, 741

Antifreeze for ethylene glycol recovery

This is liquid waste primarily comprised of water and ethylene glycol, with small amounts of contaminants. This waste stream was processed through distillation. The recovered ethylene glycol was sold as product; the aqueous waste removed as contaminant was treated in the facility's biological treatment system and subsequently discharged to POTW. The following codes represent the bulk of the wastes in this category:

RCRA waste codes: D008

California Waste Codes: 133, 134, 135

Aqueous wastes

These are liquid wastes with substantial amounts (typically > 50%) of water, with organic contaminants. These wastes were processed at the facility through distillation. The resulting water with reduced organic content was polished through the facility's biological treatment system and subsequently discharged to POTW. The contaminants removed from the water were fuel blended. The following codes represent the bulk of the wastes in this category:

RCRA Waste codes: D001, D035, F001-F005, F039

California Waste Codes: 121, 122, 123, 131, 132, 133, 134, 135, 214, 222, 223, 241, 291, 331, 551, 561

Corrosive wastes for neutralization

These are liquid wastes exhibiting a high or low pH, contaminated with metals and small amounts of organics. These wastes were neutralized in Tanks NT-1, NT-2, and NT-3, or shipped off-site for treatment. If treated onsite, the resulting neutralized aqueous waste stream was further treated through the facility's biological treatment system and subsequently discharged to POTW. The following codes represent the bulk of the wastes in this category:

RCRA Waste Codes: D002, D004, D005, D006, D007, D008, D009, D010, D011

California Waste Codes: 121, 122, 123, 131, 132, 134

Organic solids

These are solid wastes that are organic in nature and/or are contaminated with organics. These wastes were shipped off-site to solid fuel blending/burning facilities, in some cases after being consolidated and/or shredded. The following codes represent the bulk of the wastes in this category:

RCRA Waste Codes: F001-F005, F037, F038, F039

California Waste Codes: 281, 291, 331, 352, 461, 491

Other wastes were generally stored onsite in containers and shipped offsite, in some cases after being consolidated. Such wastes could reflect any of the waste codes authorized for receipt by the facility. The complete list of codes the facility was authorized to accept follows:

RCRA waste codes: D001, D002, D004-D011, D018, D019, D021-D030, D032-D036, D038, D039, D040, D043, F001-F005, F006, F024, F037, F038, F039, K048-K052, K086, K087, K156-K159, K161, K169, K170-K172, P127, P128, P185, P188, P189, P190, P191, P192, P194, P196, P197, P198, P199, P201, P202, P203, P204, P205, U002, U003, U004, U019, U031, U037, U055, U056, U057, U070, U080, U108, U110, U112, U121, U122, U140, U154, U159, U161, U171, U209, U210, U211, U213, U220, U226, U228, U239, U271, U278, U279, U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409, U410, U411

California Waste Codes: 121, 122, 123, 131, 132, 133, 134, 135, 141, 151, 161, 171, 172, 181, 211, 212, 213, 214, 221, 222, 223, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 481, 491, 511, 512, 513, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751, 791, 792

4.3. Current Inventory of Wastes

As of October 31, 2007, the facility had eliminated the inventory of all the waste it had received from off-site sources.

4.4. Closure Generated Wastes

Bay's expectation of closure generated waste streams includes, but may not be limited to the below list:

- VOC and Heavy Metal contaminated Waste Water from rinsing and decontaminating equipment and materials
- Petroleum and Heavy Metals contaminated PPE and other debris

4.5. Management of Closure Generated Wastes

The provisions below describe how Bay will manage waste generated by closure activities.

4.5.1. Waste Determination

Waste determination will be made at the advent of waste generation from closure activities. Determination will be based on waste generated from the following sources.

- 1 Solids, sludges and liquids that are likely to be encountered during initial phases of decontaminating or disassembling tanks, process distillation systems, piping, chillers, and waste collection systems.
- 2 Spent decontamination solutions and rinse water used for pressure washing during decontamination.
- 3 Demolition material determined not suitable for decontamination.
- 4 PPE and contaminated materials used for the decommissioning or decontamination of equipment and other various media.

Waste determinations will consist of collecting representative samples from one or more of the above waste categories after they have been appropriately containerized and staged pending analysis.

Provisions of 40CFR Subpart B (Criteria for Identifying the Characteristics of Hazardous Waste) will apply for the determination of RCRA regulated waste streams as well as the provisions of CCR Article 3 §66261.20 and Article 4 §66261.30 for the determination as California Hazardous Waste.

Provisions of CCR 66261.3(a)(2)(B), section 66261.3(a)(2)(D), section 66261.3(a)(2)(E), or section 66261.3(c)(2) will apply for the determination as a California Extremely Hazardous Waste

Provisions of CCR 66261.120 – 66261.126 will apply for waste determined to meet the criteria of a California Special Waste.

Provisions of CCR Article 1 will apply for the determination of recyclable materials generated during the course of closure activities.

4.5.2. Waste Quantities

Quantities of waste generated as a result of closure activities will be contingent upon one or more of the following factors.

- 1 Determination of what specific equipment is deemed suitable for decontamination based on the Performance standards decision tree (Refer to Section 5.2.2.)
- 2 Assessment of the amount of solid, sludge, or liquid waste residue encountered during initial inspection of each piece of equipment.
- 3 Determination of the type of decontamination method(s) deemed necessary for adequate decontamination of any one piece of equipment.
- 4 Determination of the amount of decontamination solutions and rinse applied collectively for the adequate decontamination of facility equipment and surfaces.
- 5 Ability and the degree of repeated reuse of decontamination wash water.

For purposes of determining appropriate controls necessary for the safe and compliant management of waste generated from closure activities Table 3 explains the criteria which can be used for estimated maximum volume of generated waste throughout closure activities.

Table 3

Holding Tank	Location	Gallons	Purpose
T-31	Tank Farm H (Unit 14)	8,800	For containment of wash and rinsewater from proximity decontamination activities on the north east side of the facility
T-38	Tank Farm MNO (Unit 16)	8,800	For containment of wash and rinsewater from proximity decontamination activities along the central east section of the facility
T-64	Tank Farm Q (Unit 17)	19,400	For containment of wash and rinsewater from decontamination activities on the West side of the facility
Tank M	Tank Farm A (Unit 8)	8,000	For containment of wash and rinsewater from proximity decontamination activities from the facility production area
T-13	Bio System (Unit 18)	25,000	For containment of wash and rinsewater from proximity decontamination activities from the bio system and south section of the facility
Total Liquid Gallons		70,000	

An additional maximum 18,480 gallons of containerized waste to include containerized non wastewater solids, sludge and PPE will be stored in Unit #14 due to suitable and compatible containment, central location and accessibility during closure.

4.5.3. Off Site Treatment and Disposal Method

Prior to sending waste related to closure activities offsite for treatment and/or disposal, Bay will assess and insure that each of the respective TSDFs are permitted to receive the specific waste stream in question. In addition, an effort will also be made to determine if the TSDFs are in good standing with the authorizing agency. This can be assessed by determining if the TSDF is approved for use by EPA pursuant to the CERCLA Offsite Rule under 40 CFR 300.440.

4.5.4. Distance to Off Site Waste Management Facility

Closure activity narratives (Section 5.2.3.) for each unit identifies a list of EPA approved facilities which may be used for waste disposal. This usage determination is based solely on the waste characteristic determination for any one or more pieces of equipment, as well as solid, sludge and liquid waste generated from decontamination. The Department will be notified prior to the selection of the final disposal facility and distance once waste determination has been made

4.5.5. Waste Acceptance

Standard TSDF waste acceptance procedures will be followed including the establishment of waste profiles.

4.5.6. Generator and Transporter Requirements

All containers used will be properly labeled at the time of waste packaging and manifested in accordance with generator standards under 22 CCR 66262.

An approved hazardous waste manifest will accompany all shipments of hazardous waste. If the receiving state does not utilize a special manifest form, a California Manifest form will be used.

Any closure wastes sent offsite for disposal will be placed in containers that meet the United Nations performance-oriented packaging standards or bulk containers that meet the U.S. Department of Transportation (DOT) requirements under 49 CFR 172 et seq.

Land Disposal Restriction (LDR) Forms will be filled out for any hazardous wastes subject to LDR standards. This form will be filled out to identify all the applicable waste codes and treatment standards. These LDR forms will be either maintained with the profile or they will accompany each hazardous waste manifest, depending on the standard procedures.

All transportation vehicles will be properly placarded and marked in accordance with U.S. DOT rules and regulations.

5 CLOSURE ACTIVITIES

5.1 General

The primary goal of this closure project is to investigate, mitigate and remove all hazardous and non-hazardous waste constituents from the facility in a safe and regulatory compliant manner. It is understood that the bulk inventory of received waste streams have already been processed and removed from the site. This closure plan is designed to locate and remove all waste residues in, and/or on, existing waste management units and related equipment. It will also provide a mechanism to address potential releases that may have occurred during normal operation. This goal will be achieved by performing the following items:

- Investigate and document the current condition of all processing equipment, containments units and associated soils through visual and analytical analysis.
- If required, clean and decontaminate processing equipment and containments units to a level that removes all residues of listed hazardous waste constituents or to a level that indicates the area or item is protective of human health and the environment based on the criteria outlined in Appendix A, Decontamination Performance Standards, of this Closure Plan.
- Process and dispose of all hazardous and non-hazardous constituents that are realized or generated as a result of our investigations and related decontamination efforts.
- To manage the determination of ultimate destination, disassembly and packaging of units and equipment prior to removal from the facility.

Because of Bay's desire to manage this project in direct association with its commitment to providing environmental stewardship during closure activities, Bay will strive to insure that all of the existing facility equipment will be processed in such a manner that will allow the equipment to be considered for resale or scraped opportunities.

To insure the equipment and related site specific materials are reused or provided as scrap, Bay will be achieving its goals of proper environmental stewardship by:

1. Providing selected equipment only to other authorized hazardous waste management facilities that can use the equipment for processing waste.
2. Rendering equipment free of all hazardous residues and decontaminated to be protective of human health and the environment before it is made available to other companies for re-use of equipment for similar types of processing activities. This will preclude equipment and materials from eventually being scraped or disposed of to a hazardous waste land fill.
3. Rendering all other metal and metallic equipment not suitable for re-use free of hazardous waste characteristics, free of free-flowing hazardous waste oil, and recycled into the metal forging industry as scrap metal.

Bay will implement measures to ensure that, during site closure, the facility is secure against unknowing and unauthorized entry. Bay will perform routine inspections to ensure that deterioration or damage does not result in security breaches, releases to the environment, or threats to human health.

5.2 Equipment and Structures Decontamination Procedures

This section describes the decontamination methods and procedures that will be used to attain the closure performance standards during closure activities at the Facility. The decontamination policies and/or requirements described below are based on DTSC Title 22 Chapter 14 Article 7 § 66264.114, USEPA closure guidance manuals, DTSC closure guidance manuals, and Bay company policies and standard operating procedures.

5.2.1 Definitions

Decontamination – Means any physical or chemical methodology designed to remove one or more physical or listed hazardous substances from surfaces to below a specified concentration.

Dismantling/Demolishing - Dismantling and demolishing allow the owner or operator to disassemble the equipment into components or manageable pieces. This method separates types of equipment that are not feasible to be decontaminated and have to be disposed of as hazardous waste from that equipment which can be disposed of as non-hazardous waste.

Equipment – For purposes of this closure plan equipment means any single or combination of mechanical devices used for processing hazardous wastes or materials. The term equipment includes all chemical handling systems used or designed to hold, transfer, or treat hazardous waste.

Hydro-blasting – Hydro-blasting removes surface contaminants by using a high-pressure water jet. This method can remove a thin layer of material on concrete, brick, or metal surface. Hydro-blasting may incorporate variations such as hot or cold water, abrasives, solvents, surfactants, and varied pressures. This method is not applicable for removing a contaminant that has penetrated into the equipment or structure surface.

Item – Means any single piece of equipment, system component, or structures used or associated with hazardous waste handling or processing

Non System Equipment - means an electrical, pneumatic, or hand powered device, tanks, piping, utilities, or fixtures having a common or non-specific treatment function and may include; portable pumps, material transfer equipment, holding tanks and bulk containers, carts, piping manifolds, non process specific structures and PPE.

Non System Structure - means any aboveground structure including metal assembled buildings, awnings, supporting frameworks, sheds, portable storage containers, railings,

Pressure Flushing - Pressure flushing utilizes pressurized water to clean the interior surfaces that are inaccessible by hydroblasting. Pressure flushing dislodges contaminants adhering to the interior surfaces of piping, pumps, and other internal parts of the process equipment. Surfactants, caustic solutions, or commercial cleaners can be added to the water to decrease surface tension and increase effectiveness.

Sandblasting - Sandblasting is an abrasive decontamination method that strips off the top layer of equipment or structure surface. It is an effective method to remove gross contaminants before subsequent application of other decontamination methods. Sandblasting is advantageous over hydroblasting or solvent washing since its effectiveness does not depend on solubility of a contaminant in a cleaning agent. Precaution should be taken to confine airborne particulates generated.

Solvent Washing - Solvent washing dissolves and removes contaminants that are not water soluble. The success of this method depends on the miscibility between solvents and contaminants. The primary difficulty of this process is that penetration of the solvent into porous material, followed by outward diffusion, may require a long period of time.

Steam Cleaning - Steam cleaning physically extracts a contaminant from equipment or structure surface. It is often used to remove contaminated soil from earth moving and drilling equipment. Steam cleaning produces less wastewater than hydro-blasting. Removal or reaction of contaminants from the subsurface using this process is poor as many contaminants have low solubility in water.

System – means an assembly of equipment and structures designed to perform a specific treatment process or treatment process support function and includes all process equipment, pumps, tanks, pressure vessels, piping and piping manifolds pneumatic equipment supporting structures, utilities, electrical, and fixtures.

Tank – Mean any container having an internal capacity greater than 110 gallons and used primarily for storing hazards waste or materials.

Verification Sampling and Testing – Means confirmatory, confirmation, certification or other sampling and/or testing conducted after decontamination or, in lieu of decontamination, to determine the presence of contaminants listed under closure performance standards

5.2.2 Decontamination Performance Determination

This section is broken into four separate decontamination performance outlines, each of which describe the decontamination performance standards, methods and related sampling confirmation required to fulfill unit disposition expectations. The four disposition expectations are as follows:

- HWMU and related equipment destined for resale
- HWMU and related equipment destined for scrap
- HWMU and related equipment destined for non-hazardous waste disposal
- HWMU and related equipment destined for hazardous waste disposal

During this explanation process each outline refers to specific appendices each of which are related to multiple methods of decontamination performance criteria. These appendices are designed to explain specific details related to the correct implementation and expectations associated with decontamination and closure activities, to include:

- What decontamination (analytical) standards are required in order to fulfill the specific performance determination? (Appendix A)
- What type of decontamination method must be implemented in order to achieve fulfillment of the specific performance determination? (Appendix B)
- What are the parameters of confirmation testing that must take place in order to confirm achievement of the required analytical standards? (Appendix C)

Although the following decontamination performance outlines provide a general explanation of the criteria which must be met in order to achieve one of the four disposition expectations you will need to refer to the closure activity narratives found in section 5.2.3 for specific HWMU performance standard, method and confirmatory information.

Unit or Equipment Decontamination: **RESALE**

Bay anticipates that it will be able to sell certain equipment to authorized purchasers. Therefore certain closure activities will initially be directed to this end.

The Department will be notified in writing of the designated destination facilities of all equipment that is sold in the event of an agreed sale to a perspective purchaser. Notification will be provided prior to equipment being transported off of the former Romic site.

Appendix A1 Decontamination Performance Standards for Resale of Solvent Distillation Systems, Tanks, and General Equipment sets forth specific decontamination performance standards for resale and shipment following decontamination efforts described in -

Appendix B1A Decontamination Performance Methods for Open Aboveground Framework for Resale, or;

Appendix B2A Decontamination Performance Methods for Piping for Resale, or;

Appendix B3A Decontamination Performance Methods for Equipment Systems for Resale, or;

Appendix B4A Decontamination Performance Methods for Process Structures for Resale, or;

Appendix B5A Decontamination Performance Methods for Distillation Systems for Resale, or;

Appendix B6A Decontamination Performance Methods for Open Distillation Systems for Resale, or;

Appendix B7A Decontamination Performance Methods for Tanks for Resale

And are conducted and successful as gauged in accordance with;

Appendix C1 Decontamination Performance Confirmation for Resale of Solvent Distillation Systems, or;

Appendix C2 Decontamination Performance Confirmation for Resale of Tanks, or;

If the decontamination performance standard for release as non-regulated equipment is met, decontamination will be deemed successful, and system components will be transported on a straight bill of lading to the purchaser's location.

If the decontamination performance standards for release as non-regulated equipment have not been met, decontamination will be repeated until the standards are met. Alternately, equipment may be evaluated against decontamination performance standards for shipment as scrap, non-hazardous waste or hazardous waste depending on continued decontamination cost, time, safety, and practicality.

Unit or Equipment Decontamination: **SCRAP**

Bay anticipates that it will be able to decontaminate most non porous materials (metals) to standards acceptable for offering as scrap metal. Therefore certain closure activities will initially be directed to this end. All scrap metal for shipment and transportation will be recorded and made part of the Bay closure report.

Appendix A2 Decontamination Performance Standards for Metal Scrap sets forth specific decontamination performance standards for scrap or recyclable shipment so long decontamination efforts described in

Appendix B2B Decontamination Performance Methods for Open Aboveground Framework for Scrap, or;

Appendix B3B Decontamination Performance Methods for Piping for Scrap, or;

Appendix B4B Decontamination Performance Methods for Equipment Systems for Scrap, or;

Appendix B5B Decontamination Performance Methods for Process Structures for Scrap, or;

Appendix B6B Decontamination Performance Methods for Distillation Systems for Scrap, or;

Appendix B7B Decontamination Performance Methods for Tanks for Scrap, and

are conducted and successful as gauged in accordance with **Appendix C** Decontamination Performance Confirmation for Scrap.

If the decontamination performance standard for release as scrap metal is met, decontamination will be deemed successful, and system components will be transported on a straight bill of lading to the scrap dealer location.

If the decontamination performance standards for release as scrap have not been met, decontamination will be repeated until the standards are met. Alternately, equipment may be evaluated against decontamination performance standards for shipment as non-hazardous waste or hazardous waste depending on continued decontamination cost, time, safety, and practicality.

Unit or Equipment Decontamination: DISPOSAL AS NON-HAZARDOUS WASTE

Bay anticipates that certain materials are only suitable for decontamination as non-hazardous waste and therefore certain closure activities will initially be directed to this end. Materials for shipment and transportation as non-hazardous waste will be recorded and made part of the Bay closure report.

Appendix A3 Decontamination Performance Standards for Non-Hazardous Waste sets forth specific decontamination performance standards for shipments of non-hazardous based on decontamination efforts described in -

Appendix B1B Decontamination Performance Methods Non Containment Pads Leaving in Place, or;

Appendix B3C Decontamination Performance Methods for Piping as Non Hazardous Waste, or;

Appendix B4C Decontamination Performance Methods for Equipment Systems as Non Hazardous Waste, or;

Appendix B6C Decontamination Performance Methods for Distillation Systems as Non Hazardous Waste, or;

Appendix B7C Decontamination Performance Methods for Tanks as Non Hazardous Waste

and are conducted and successful as gauged in accordance with **Appendix C** Decontamination Performance Confirmation for Non Hazardous Waste

If the decontamination performance standard for release as non-hazardous waste is met, decontamination will be deemed successful, and system components will be transported on a non-hazardous waste manifest directly to the disposal facility location. Note that even if no physical decontamination is conducted, materials designated for non-hazardous waste disposal must still undergo the confirmation criteria found in **Appendix C** (Decontamination Performance Confirmation for Non Hazardous Waste.)

If the decontamination performance standards for release as non-hazardous waste have not been met, decontamination will be repeated until the standards are met. Alternately, equipment may be evaluated against decontamination performance standards for shipment as hazardous waste depending on continued decontamination cost, time, safety, and practicality.

Unit or Equipment Decontamination: DISPOSAL AS HAZARDOUS WASTE

Bay anticipates that certain materials are only suitable for decontamination as hazardous waste and therefore certain closure activities will initially be directed to this end. Equipment designated as hazardous waste will be characterized and appropriately described and shipped on a uniform hazardous waste manifest. Materials for shipment and transportation as hazardous waste will be recorded and made part of the Bay closure report.

Appendix A4 Decontamination Performance Standards for Hazardous Waste sets forth specific decontamination performance standards for shipments of hazardous waste based on decontamination efforts described in -

Appendix B1C Decontamination Performance Methods for Concrete Removed as Hazardous Waste, or;

Appendix B3D Decontamination Performance Methods for Piping as Hazardous Waste, or;

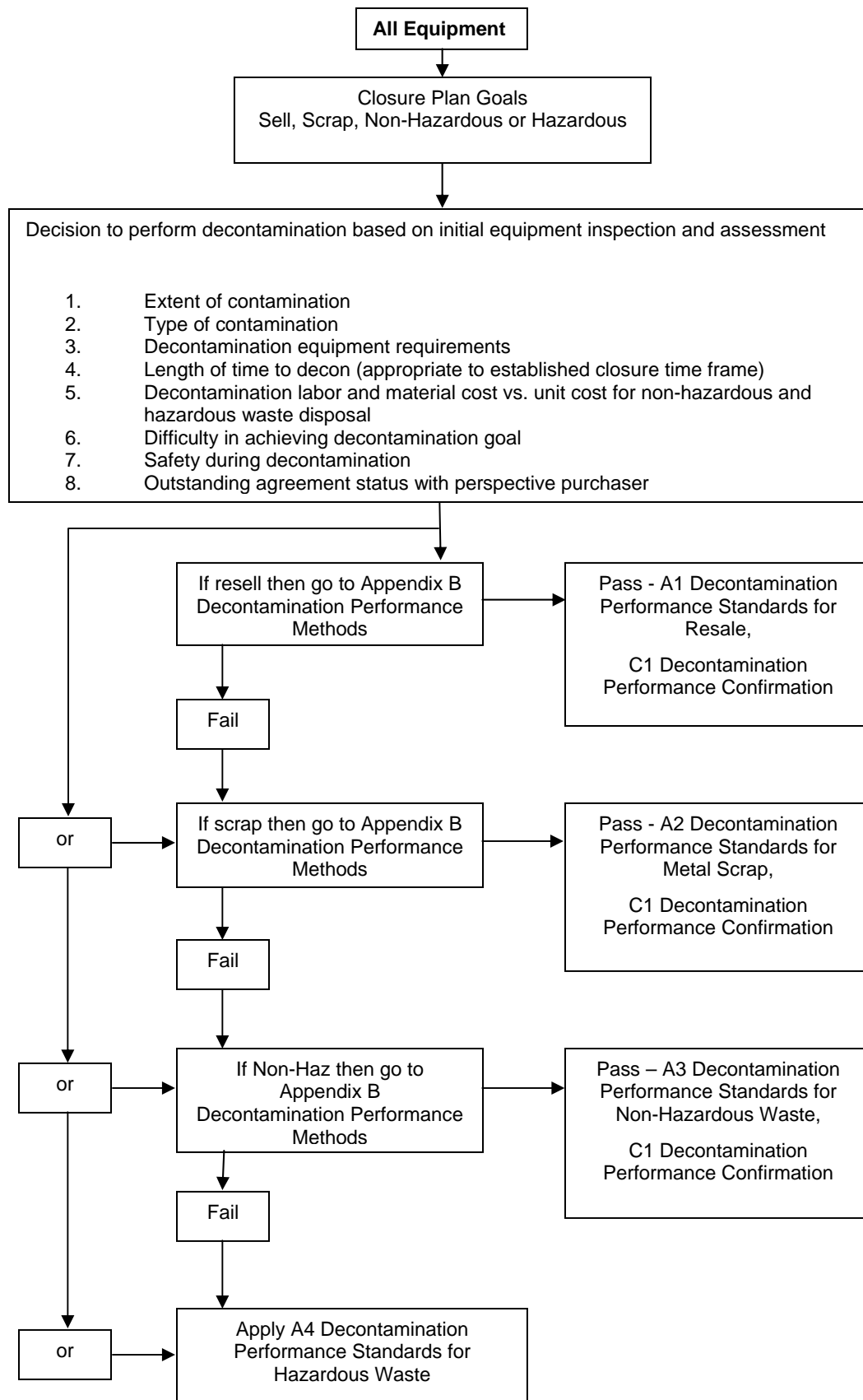
Appendix B4D Decontamination Performance Methods for Equipment Systems as Hazardous Waste, or;

Appendix B6D Decontamination Performance Methods for Distillation Systems as Hazardous Waste, or;

Appendix B7D Decontamination Performance Methods for Tanks as Hazardous Waste

And the success of decontamination as gauged in accordance with **Appendix C** Decontamination Performance Confirmation for Hazardous Waste.

Table 4 Bay Closure Plan Equipment Decontamination Decision Tree



5.2.3. HWMU Unit Description and Decontamination Criteria Narratives

The following narratives provide specific information related to the closure of each HWMU and related equipment, materials, containments, concrete and structures.

The specific information outlined in these narratives is as follows:

- Equipment description
- Equipment location
- Equipment volume capacity and physical dimensions
- Equipment's materials of construction
- The waste that was managed by the equipment
 - Common name of the waste
 - Related U.S. EPA and California Waste Codes
 - Constituents of concern
- Recommended final disposition of equipment
- Decontamination Performance Standards, Methods and Confirmation criteria

Within each narrative there is a reference to specific appendices sections, each of which are related to multiple methods of decontamination performance criteria. These appendices are designed to explain specific details related to the correct implementation and expectations associated with decontamination related closure activities, to include:

- What decontamination (analytical) standards are required in order to fulfill the specific performance determination? (Appendix A)
- What type of decontamination method must be implemented in order to achieve fulfillment of the specific performance determination? (Appendix B)
- What are the parameters of confirmation testing that must take place in order to confirm achievement of the required analytical standards? (Appendix C)

Narratives 1 through 36 explain the closure activities related to the permitted HWMU's. Narratives 37 through 43 explain the closure activities related to non-permitted items such as the non-contained concrete pad, the administrative and operational structures, water tanks, etc.

NOTE: Because these narratives provide comprehensive information which will be used for guidance during closure activities, each narrative must be read in its entirety and understood prior to commencement of closing the HWMU in question.

Unit #1 North Storage Building Closure Activity Narrative

Equipment Description

The North Storage Building houses one fixed drum crusher and one mobile drum crusher. This building also includes a sprinkler system using aqueous film forming foam.

Location/Area

The North Storage Building is located next to the South Storage Building. Refer to Figures B-03 and B-05a.

Capacity/Dimension

The North Storage Building has a maximum storage capacity of 45,560 gallons to include one roll-off bin which has a 40 cubic yard capacity. The storage unit is 99 feet in length and 49 feet wide. The containment slab is surrounded on three sides by metal sheeting walls atop one foot high concrete dike or berm. The east end, the fourth side, is open and ramped to the height of the dike. The west end wall is partially open on the top for ventilation. The minimum berm height is seven (7) inches. The building has a metal roof.

Materials of Construction

The floor area consists of concrete slab constructed of nominal 6" concrete with #6 rebar spaced 12" on center each way. The containment slab is surrounded on three sides by metal sheeting walls atop one foot high concrete dike or berm. The roof is made of metal framework and sheet metal skirting.

Waste Managed

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, tri-chloroethylene, trichloroethane
3. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
4. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
5. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
6. Wastewater
7. Miscellaneous metal bearing waste
8. Non-pumpable sludge, filter cake, contaminated soils
9. Solid fuel such as contaminated rags, wipes, wood and other debris having high BTU value, reacted resins, spill cleanup residuals
10. Solids for consolidation and landfill such as solid corrosive materials, sodium bicarbonate, absorbent with hydrocarbons, plating sludges, baghouse dust, petroleum contaminated soils

11. Solids for consolidation and incineration such as packaged laboratory chemicals (lab packs), contaminated debris, paint related materials, mill waste, process waste
12. Solids such as contaminated rags, wipes, wood plastic containers, and other debris having medium BTU value
13. Aerosol cans
14. Contaminated containers
15. Lab Packs
16. Storage and Offsite Transfer

Common Name

Containerized RCRA and non RCRA hazardous waste

US EPA / California Waste Codes

EPA Regulated Waste

D001 Ignitable
 D002 Corrosive
 D004 Arsenic
 D005 Barium
 D006 Cadmium
 D007 Chromium
 D008 Lead
 D009 Mercury
 D010 Selenium
 D011 Silver
 D018 Benzene
 D019 Carbon Tetrachloride
 D021 Chlorobenzene
 D022 Chloroform
 D023 o- Cresol
 D024 m- Cresol
 D025 p- Cresol
 D026 Cresol
 D027 1, 4- Dichlorobenzene
 D028 1, 2- Dichloroethane
 D029 1, 1- Dichloroethylene
 D030 2, 4- Dinitrotoluene
 D032 Hexachlorobenzene
 D033 Hexachlorobutadiene
 D034 Hexachloroethane
 D035 Methyl Ethyl Ketone
 D036 Nitrobenzene
 D038 Pyridine
 D039 Tetrachloroethylene
 D040 Trichloroethylene
 D043 Vinyl Chloride
 F001 halogenated solvents used in degreasing
 F002 spent halogenated solvents
 F003 spent non-halogenated solvents
 F004 spent non-halogenated solvents
 F005 spent non-halogenated solvents FI
 F006 wastewater treatment sludge from electroplating
 F024 Process wastes from the production of certain chlorinated aliphatic hydrocarbons
 F037 Petroleum refinery primary oil/water/solids separation sludge
 F038 oil/water/solids separation sludge

F039 leachate
 K048 dissolved air flotation (DAF) float from the petroleum refining industry
 K049 slop oil emulsion solids from the petroleum refining industry
 K050 heat exchanger bundle cleaning sludge from the petroleum refining industry
 K051 API separator sludge from the petroleum refining industry
 K052 tank bottoms (lead) from the petroleum refining industry
 K086 washes and sludge from cleaning tubs and equipment used in the formulation of ink;
 K087 decanter tank tar sludge from coking operations
 K156 Organic hazardous waste from the production of carbamates and carbamoyl oximes
 K157 Hazardous wastewaters from the production of carbamates and carbamoyl oximes
 K158 Bag house dusts/ filter/separation solids from production of carbamates/carbamoyl oximes
 K159 Organics from the treatment of thiocarbamate hazardous wastes
 K161 Purification solids/bag house dust/floor sweeps from production of DCBA acids and salts
 K169 Crude oil storage tank sediment from petroleum refining operations
 K170 Clarified slurry oil storage tank sediment from petroleum refining operations
 K171 Spent hydrotreating catalyst petroleum refining operations/guard beds to desulfurize feeds
 K172 Spent hydrotreating catalyst petroleum refining operations/guard beds to desulfurize feeds
 P022 Carbon disulfide
 P067 Aziridine, 2-methyl-
 P127 Carbofuran
 P128 Phenol, 4-(dimethylamino)-3,5-dimethyl-,methylcarbamate (ester)
 P185 Tirpate
 P188 Physostigmine salicylate
 P189 Carbosulfan
 P190 Metolcarb
 P191 Dimetilan
 P192 Isolan
 P194 Oxamyl
 P196 Manganese dimethyldithiocarbamate
 P197 Formparanate
 P198 Formetanate hydrochloride
 P199 Methiocarb
 P201 Promecarb
 P202 Phenol, 3-(1-methylethyl)-, methylcarbamate
 P203 Aldicarb sulfone
 P204 Physostigmine CAS#: 54-47-6
 P205 Ziram
 U002 Acetone
 U003 Acetonitrile
 U004 Acetophenone
 U019 Benzene
 U031 n-Butyl Alcohol
 U037 Benzene, chloro-
 U043 Ethene, chloro-
 U055 Cumene Flammable
 U056 Cyclohexane
 U057 Cyclohexanone
 U070 Benzene, 1,2-dichloro-
 U080 Methane, dichloro-
 U108 1,4-Dioxane
 U110 Dipropylamine
 U112 Ethyl Acetate
 U121 Methane, trichlorofluoro-
 U122 Formaldehyde
 U140 Isobutyl alcohol
 U151 Mercury
 U154 Methanol
 U159 Methyl ethyl ketone
 U161 Methyl isobutyl ketone
 U171 2-Nitropropane

U209 1,1,2,2-Tetrachloroethane
U210 Tetrachloroethylene
U211 Carbon tetrachloride
U213 Furan, tetrahydro-
U220 Toluene
U226 Methyl chloroform
U228 Trichloroethylene
U239 Xylene

California State Regulated Waste

121 Alkaline solution (pH <UN> 12.5) with metals
122 Alkaline solutions without metals (pH > 12.5)
123 Unspecified alkaline solutions
131 Aqueous solution (2 < pH < 12.5) containing reactive anions
132 Aqueous solutions with metals
133 Aqueous solutions with 10% or more total organic residues
134 Aqueous solutions with less than 10% total organic residues
135 Unspecified aqueous solutions
141 Off-specification, aged, or surplus inorganics
151 Asbestos-containing wastes
161 Fluid-cracking catalyst (FCC) wastes
162 Other spent catalyst
171 Metal sludge (see 121)
172 Metal dust (see 121) and machining waste
181 Other inorganic solid waste
211 Halogenated solvents
212 Oxygenated solvents
213 Hydrocarbon solvents
214 Unspecified solvent mixtures
221 Waste oil and mixed oil
222 Oil/water separation sludge
223 Unspecified oil-containing waste
231 Pesticide rinse water
232 Pesticides and other waste associated with pesticide Production
241 Tank bottom waste
251 Still bottoms with halogenated organics
252 Other still bottom waste
271 Organic monomer wastes
272 Polymeric resin wastes
281 Adhesives
291 Latex wastes
311 Pharmaceutical wastes
331 Off-specification, aged, or surplus organics
341 Organic liquids with halogens
342 Organic liquids with metals
343 Unspecified organic liquid mixture
351 Organic solids with halogens
352 Other organic solids
411 Alum and gypsum sludge
421 Lime sludge
431 Phosphate sludge
441 Sulfur sludge
451 Degreasing sludge
461 Paint sludge
471 Paper sludge/pulp
481 Tetraethyl lead sludge
491 Unspecified sludge waste
511 Empty pesticide containers 30 gallons or more
512 Other empty containers 30 gallons or more

513 Empty containers less than 30 gallons
521 Drilling mud
541 Photochemicals / photoprocessing waste
551 Laboratory waste chemicals
561 Detergent and soap
571 Fly ash, bottom ash, and retort ash
581 Gas scrubber waste
591 Baghouse waste
611 Contaminated soils from site clean-ups
612 Household wastes
721 Liquids with arsenic > 500 mg/l
722 Liquids with cadmium > 100 mg/l
723 Liquids with chromium (VI) > 500 mg/l
724 Liquids with lead > 500 mg/l
725 Liquids with mercury > 20 mg/l
726 Liquids with nickel > 134 mg/l
727 Liquids with selenium > 100 mg/l
728 Liquids with thallium > 130 mg/l
741 Liquids with halogenated organic compounds > 1000 mg/l
751 Solids or sludges with halogenated organic compounds >1000mg/kg
791 Liquids with pH # 2
792 Liquids with pH # 2 with metals

Constituents of Concern

Flammables, corrosives, heavy metals, reactive, halogenated and non-halogenated solvents pharmaceuticals, and unused or off spec chemical formulations

Disposition

Although the initial goal will be to decontaminate the Unit #1 structural material for resale or scrap, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

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Decontamination Performance Standards:

For structural materials refer to Appendix:	A1 Resale, A2 Scrap, A3 Non Hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non Hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For structural and related equipment refer to Appendix:	B5A Process Structures for Resale, B5B Scrap, B4A Equipment Resale, B4B Equipment Scrap, B4C Non Hazardous Waste, B4D Hazardous Waste
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For structural materials and equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

NOTE: Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #2 South Storage Building Closure Activity Narrative

Equipment Description

There is no major equipment located in this unit with the exception of a sprinkler system using aqueous film forming foam.

Location/Area

The South Storage Building is located between the North Storage Building and the Sampling Area. Refer to figures B-03 and B-05a.

Capacity\Dimension

The South Storage Building is 173 feet in length and 69.5 feet wide. The concrete containment slab is surrounded on three sides by metal sheeting walls atop a one-foot dike or berm. The south end, the fourth side which faces the Sampling Area, is open and ramped to the height of the dike. The minimum berm height is 8". This building has a separately bermed Isolation row about four feet wide by 15 feet long that can accommodate 24 drums and is used to segregate incompatible wastes or keep other material separated. The building has a roof and is protected

The maximum capacity of total storage in containers is 140,580 gallons. The container type and size may vary.

Materials of Construction

The South Storage Building consists of concrete slab constructed of nominal 6" concrete with #6 rebar spaced 12" on center each way. The containment slab is surrounded on three sides by metal sheeting walls atop one foot high concrete dike or berm. The roof is comprised of metal framework and sheet metal skirting.

Waste Managed

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
4. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
5. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
6. Wastewater
7. Miscellaneous metal bearing waste
8. Non-pumpable sludge, filter cake, contaminated soils
9. Solid fuel such as contaminated rags, wipes, wood and other debris having high BTU value, reacted resins, spill cleanup residuals
10. Solids for consolidation and landfill such as solid corrosive materials, sodium bicarbonate, absorbent with hydrocarbons, plating sludges, baghouse dust, petroleum contaminated soils

11. Solids for consolidation and incineration such as packaged laboratory chemicals (lab packs), contaminated debris, paint related materials, mill waste, process waste
12. Solids such as contaminated rags, wipes, wood plastic containers, and other debris having medium BTU value
13. Aerosol cans
14. Contaminated containers
15. Lab Packs
16. Storage and Offsite Transfer

Common Name

Containerized RCRA and non RCRA hazardous waste

US EPA / California Waste Codes

Waste Managed

EPA Regulated Waste

D001 Ignitable
 D002 Corrosive
 D004 Arsenic
 D005 Barium
 D006 Cadmium
 D007 Chromium
 D008 Lead
 D009 Mercury
 D010 Selenium
 D011 Silver
 D018 Benzene
 D019 Carbon Tetrachloride
 D021 Chlorobenzene
 D022 Chloroform
 D023 o- Cresol
 D024 m- Cresol
 D025 p- Cresol
 D026 Cresol
 D027 1, 4- Dichlorobenzene
 D028 1, 2- Dichloroethane
 D029 1, 1- Dichloroethylene
 D030 2, 4- Dinitrotoluene
 D032 Hexachlorobenzene
 D033 Hexachlorobutadiene
 D034 Hexachloroethane
 D035 Methyl Ethyl Ketone
 D036 Nitrobenzene
 D038 Pyridine
 D039 Tetrachloroethylene
 D040 Trichloroethylene
 D043 Vinyl Chloride
 F001 halogenated solvents used in degreasing
 F002 spent halogenated solvents
 F003 spent non-halogenated solvents
 F004 spent non-halogenated solvents
 F005 spent non-halogenated solvents FI
 F006 wastewater treatment sludge from electroplating
 F024 Process wastes from the production of certain chlorinated aliphatic hydrocarbons

F037 Petroleum refinery primary oil/water/solids separation sludge
 F038 oil/water/solids separation sludge
 F039 leachate
 K048 dissolved air flotation (DAF) float from the petroleum refining industry
 K049 slop oil emulsion solids from the petroleum refining industry
 K050 heat exchanger bundle cleaning sludge from the petroleum refining industry
 K051 API separator sludge from the petroleum refining industry
 K052 tank bottoms (leaded) from the petroleum refining industry
 K086 washes and sludge from cleaning tubs and equipment used in the formulation of ink;
 K087 decanter tank tar sludge from coking operations
 K156 Organic hazardous waste from the production of carbamates and carbamoyl oximes
 K157 Hazardous wastewaters from the production of carbamates and carbamoyl oximes
 K158 Bag house dusts/ filter/separation solids from production of carbamates/carbamoyl oximes
 K159 Organics from the treatment of thiocarbamate hazardous wastes
 K161 Purification solids/bag house dust/floor sweeps from production of DCBA acids and salts
 K169 Crude oil storage tank sediment from petroleum refining operations
 K170 Clarified slurry oil storage tank sediment from petroleum refining operations
 K171 Spent hydrotreating catalyst petroleum refining operations/guard beds to desulfurize feeds
 K172 Spent hydrotreating catalyst petroleum refining operations/guard beds to desulfurize feeds
 P022 Carbon disulfide
 P067 Aziridine, 2-methyl-
 P127 Carbofuran
 P128 Phenol, 4-(dimethylamino)-3,5-dimethyl-,methylcarbamate (ester)
 P185 Tirpate
 P188 Physostigmine salicylate
 P189 Carbosulfan
 P190 Metolcarb
 P191 Dimetilan
 P192 Isolan
 P194 Oxamyl
 P196 Manganese dimethyldithiocarbamate
 P197 Formparanate
 P198 Formetanate hydrochloride
 P199 Methiocarb
 P201 Promecarb
 P202 Phenol, 3-(1-methylethyl)-, methylcarbamate
 P203 Aldicarb sulfone
 P204 Physostigmine CAS#: 54-47-6
 P205 Ziram
 U002 Acetone
 U003 Acetonitrile
 U004 Acetophenone
 U019 Benzene
 U031 n-Butyl Alcohol
 U037 Benzene, chloro-
 U043 Ethene, chloro-
 U055 Cumene Flammable
 U056 Cyclohexane
 U057 Cyclohexanone
 U070 Benzene, 1,2-dichloro-
 U080 Methane, dichloro-
 U108 1,4-Dioxane
 U110 Dipropylamine
 U112 Ethyl Acetate
 U121 Methane, trichlorofluoro-
 U122 Formaldehyde
 U140 Isobutyl alcohol
 U151 Mercury
 U154 Methanol
 U159 Methyl ethyl ketone

U161 Methyl isobutyl ketone
U171 2-Nitropropane
U209 1,1,2,2-Tetrachloroethane
U210 Tetrachloroethylene
U211 Carbon tetrachloride
U213 Furan, tetrahydro-
U220 Toluene
U226 Methyl chloroform
U228 Trichloroethylene
U239 Xylene

California State Regulated Waste

121 Alkaline solution (pH <UN-> 12.5) with metals
122 Alkaline solutions without metals (pH > 12.5)
123 Unspecified alkaline solutions
131 Aqueous solution (2 < pH < 12.5) containing reactive anions
132 Aqueous solutions with metals
133 Aqueous solutions with 10% or more total organic residues
134 Aqueous solutions with less than 10% total organic residues
135 Unspecified aqueous solutions
141 Off-specification, aged, or surplus inorganics
151 Asbestos-containing wastes
161 Fluid-cracking catalyst (FCC) wastes
162 Other spent catalyst
171 Metal sludge (see 121)
172 Metal dust (see 121) and machining waste
181 Other inorganic solid waste
211 Halogenated solvents
212 Oxygenated solvents
213 Hydrocarbon solvents
214 Unspecified solvent mixtures
221 Waste oil and mixed oil
222 Oil/water separation sludge
223 Unspecified oil-containing waste
231 Pesticide rinse water
232 Pesticides and other waste associated with pesticide Production
241 Tank bottom waste
251 Still bottoms with halogenated organics
252 Other still bottom waste
261 Pentachlorophenol Biphenyls
271 Organic monomer wastes
272 Polymeric resin wastes
281 Adhesives
291 Latex wastes
311 Pharmaceutical wastes
331 Off-specification, aged, or surplus organics
341 Organic liquids with halogens
342 Organic liquids with metals
343 Unspecified organic liquid mixture
351 Organic solids with halogens
352 Other organic solids
411 Alum and gypsum sludge
421 Lime sludge
431 Phosphate sludge
441 Sulfur sludge
451 Degreasing sludge
461 Paint sludge
471 Paper sludge/pulp
481 Tetraethyl lead sludge

491 Unspecified sludge waste
511 Empty pesticide containers 30 gallons or more
512 Other empty containers 30 gallons or more
513 Empty containers less than 30 gallons
521 Drilling mud
541 Photochemicals / photoprocessing waste
551 Laboratory waste chemicals
561 Detergent and soap
571 Fly ash, bottom ash, and retort ash
581 Gas scrubber waste
591 Baghouse waste
611 Contaminated soils from site clean-ups
612 Household wastes
721 Liquids with arsenic > 500 mg/l
722 Liquids with cadmium > 100 mg/l
723 Liquids with chromium (VI) > 500 mg/l
724 Liquids with lead > 500 mg/l
725 Liquids with mercury > 20 mg/l
726 Liquids with nickel > 134 mg/l
727 Liquids with selenium > 100 mg/l
728 Liquids with thallium > 130 mg/l
741 Liquids with halogenated organic compounds > 1000 mg/l
751 Solids or sludges with halogenated organic compounds >1000mg/kg
791 Liquids with pH # 2
792 Liquids with pH # 2 with metals

Constituents of Concern

Flammables, corrosives, heavy metals, reactive, halogenated and non-halogenated solvents pharmaceuticals, and unused or off spec chemical formulations

Disposition

Although it is the initial goal to decontaminate the Unit #2 structural material for resale or scrap, section 5.2.2. of this plan provides four disposition options complete with related decision tree

Decontamination Performance Standards:

For structural materials refer to Appendix:	A1 Resale, A2 Scrap, A3 Non Hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non Hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For structural and related equipment refer to Appendix:	B5A Process Structures for Resale, B5B Scrap, B4A Equipment Resale, B4B Equipment Scrap, B4C Non Hazardous Waste, B4D Hazardous Waste
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For structural materials and equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #3 Sampling Area Closure Activity Narrative

Equipment Description

There is no major equipment located in Unit #3 with the exception of a sprinkler system using aqueous film forming foam.

Location/Area

The Sampling Area is located south of the South Storage Building. Refer to Figures B-03 and B-05a.

Capacity/Dimension

The Sampling Area is 125 feet in length and 74 feet wide. The containment slab is surrounded on the south side by a metal sheeting wall. The north end is open and faces the South Storage Building and the west end is open and faces out to the proposed Drum Pumping Area. The minimum berm height is 9". The Sampling Area has a roof and The Sampling Area has a segregated secondary containment area within the building at the western end referred to as Row 80. Row 80 has a berm that separates this area from the rest of the building. Incompatible waste shall be stored in Row 80 or on containment pallets with a sump capacity of sixty (60) gallons or more that can hold up to four (4) standard drums at a time.

The maximum capacity of total storage in containers is 40,755 gallons. The container type and size may vary.

Materials of Construction

The sampling area consists of concrete slab constructed of nominal 6" concrete with #6 rebar spaced 12" on center each way. The containment slab is surrounded on three sides by metal sheeting walls atop one foot high concrete dike or berm. The roof is comprised of metal framework and sheet metal skirting.

Waste Managed

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
4. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
5. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
6. Wastewater
7. Miscellaneous metal bearing waste
8. Non-pumpable sludge, filter cake, contaminated soils
9. Solid fuel such as contaminated rags, wipes, wood and other debris having high BTU value, reacted resins, spill cleanup residuals

10. Solids for consolidation and landfill such as solid corrosive materials, sodium bicarbonate, absorbent with hydrocarbons, plating sludges, baghouse dust, petroleum contaminated soils
11. Solids for consolidation and incineration such as packaged laboratory chemicals (lab packs), contaminated debris, paint related materials, mill waste, process waste
12. Solids such as contaminated rags, wipes, wood plastic containers, and other debris having medium BTU value
13. Aerosol cans
14. Contaminated containers
15. Lab Packs
16. Storage and Offsite Transfer

Common Name

Containerized RCRA and non RCRA hazardous waste

US EPA / California Waste Codes

Waste Managed

EPA Regulated Waste

D001 Ignitable
 D002 Corrosive
 D004 Arsenic
 D005 Barium
 D006 Cadmium
 D007 Chromium
 D008 Lead
 D009 Mercury
 D010 Selenium
 D011 Silver
 D018 Benzene
 D019 Carbon Tetrachloride
 D021 Chlorobenzene
 D022 Chloroform
 D023 o- Cresol
 D024 m- Cresol
 D025 p- Cresol
 D026 Cresol
 D027 1, 4- Dichlorobenzene
 D028 1, 2- Dichloroethane
 D029 1, 1- Dichloroethylene
 D030 2, 4- Dinitrotoluene
 D032 Hexachlorbenzene
 D033 Hexachlorobutadiene
 D034 Hexachloroethane
 D035 Methyl Ethyl Ketone
 D036 Nitrobenzene
 D038 Pyridine
 D039 Tetrachloroethylene
 D040 Trichloroethylene
 D043 Vinyl Chloride
 F001 halogenated solvents used in degreasing
 F002 spent halogenated solvents
 F003 spent non-halogenated solvents
 F004 spent non-halogenated solvents

Bay Environmental Technologies, Corp.

F005 spent non-halogenated solvents FI
 F006 wastewater treatment sludge from electroplating
 F024 Process wastes from the production of certain chlorinated aliphatic hydrocarbons
 F037 Petroleum refinery primary oil/water/solids separation sludge
 F038 oil/water/solids separation sludge
 F039 leachate
 K048 dissolved air flotation (DAF) float from the petroleum refining industry
 K049 slop oil emulsion solids from the petroleum refining industry
 K050 heat exchanger bundle cleaning sludge from the petroleum refining industry
 K051 API separator sludge from the petroleum refining industry
 K052 tank bottoms (lead) from the petroleum refining industry
 K086 washes and sludge from cleaning tubs and equipment used in the formulation of ink;
 K087 decanter tank tar sludge from coking operations
 K156 Organic hazardous waste from the production of carbamates and carbamoyl oximes
 K157 Hazardous wastewaters from the production of carbamates and carbamoyl oximes
 K158 Bag house dusts/ filter/separation solids from production of carbamates/carbamoyl oximes
 K159 Organics from the treatment of thiocarbamate hazardous wastes
 K161 Purification solids/bag house dust/floor sweeps from production of DCBA acids and salts
 K169 Crude oil storage tank sediment from petroleum refining operations
 K170 Clarified slurry oil storage tank sediment from petroleum refining operations
 K171 Spent hydrotreating catalyst petroleum refining operations/guard beds to desulfurize feeds
 K172 Spent hydrorefining catalyst petroleum refining operations/guard beds to desulfurize feeds
 P022 Carbon disulfide
 P067 Aziridine, 2-methyl-
 P127 Carbofuran
 P128 Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
 P185 Tirpate
 P188 Physostigmine salicylate
 P189 Carbosulfan
 P190 Metolcarb
 P191 Dimetilan
 P192 Isolan
 P194 Oxamyl
 P196 Manganese dimethyldithiocarbamate
 P197 Formparanate
 P198 Formetanate hydrochloride
 P199 Methiocarb
 P201 Promecarb
 P202 Phenol, 3-(1-methylethyl)-, methylcarbamate
 P203 Aldicarb sulfone
 P204 Physostigmine CAS#: 54-47-6
 P205 Ziram
 U002 Acetone
 U003 Acetonitrile
 U004 Acetophenone
 U019 Benzene
 U031 n-Butyl Alcohol
 U037 Benzene, chloro-
 U043 Ethene, chloro-
 U055 Cumene Flammable
 U056 Cyclohexane
 U057 Cyclohexanone
 U070 Benzene, 1,2-dichloro-
 U080 Methane, dichloro-
 U108 1,4-Dioxane
 U110 Dipropylamine
 U112 Ethyl Acetate
 U121 Methane, trichlorofluoro-
 U122 Formaldehyde
 U140 Isobutyl alcohol

U151 Mercury
U154 Methanol
U159 Methyl ethyl ketone
U161 Methyl isobutyl ketone
U171 2-Nitropropane
U209 1,1,2,2-Tetrachloroethane
U210 Tetrachloroethylene
U211 Carbon tetrachloride
U213 Furan, tetrahydro-
U220 Toluene
U226 Methyl chloroform
U228 Trichloroethylene
U239 Xylene

California State Regulated Waste

121 Alkaline solution (pH <UN-> 12.5) with metals
122 Alkaline solutions without metals (pH > 12.5)
123 Unspecified alkaline solutions
131 Aqueous solution (2 < pH < 12.5) containing reactive anions
132 Aqueous solutions with metals
133 Aqueous solutions with 10% or more total organic residues
134 Aqueous solutions with less than 10% total organic residues
135 Unspecified aqueous solutions
141 Off-specification, aged, or surplus inorganics
151 Asbestos-containing wastes
161 Fluid-cracking catalyst (FCC) wastes
162 Other spent catalyst
171 Metal sludge (see 121)
172 Metal dust (see 121) and machining waste
181 Other inorganic solid waste
211 Halogenated solvents
212 Oxygenated solvents
213 Hydrocarbon solvents
214 Unspecified solvent mixtures
221 Waste oil and mixed oil
222 Oil/water separation sludge
223 Unspecified oil-containing waste
231 Pesticide rinse water
232 Pesticides and other waste associated with pesticide Production
241 Tank bottom waste
251 Still bottoms with halogenated organics
252 Other still bottom waste
271 Organic monomer wastes
272 Polymeric resin wastes
281 Adhesives
291 Latex wastes
311 Pharmaceutical wastes
331 Off-specification, aged, or surplus organics
341 Organic liquids with halogens
342 Organic liquids with metals
343 Unspecified organic liquid mixture
351 Organic solids with halogens
352 Other organic solids
411 Alum and gypsum sludge
421 Lime sludge
431 Phosphate sludge
441 Sulfur sludge
451 Degreasing sludge
461 Paint sludge

471 Paper sludge/pulp
481 Tetraethyl lead sludge
491 Unspecified sludge waste
511 Empty pesticide containers 30 gallons or more
512 Other empty containers 30 gallons or more
513 Empty containers less than 30 gallons
521 Drilling mud
541 Photochemicals / photoprocessing waste
551 Laboratory waste chemicals
561 Detergent and soap
571 Fly ash, bottom ash, and retort ash
581 Gas scrubber waste
591 Baghouse waste
611 Contaminated soils from site clean-ups
612 Household wastes
721 Liquids with arsenic > 500 mg/l
722 Liquids with cadmium > 100 mg/l
723 Liquids with chromium (VI) > 500 mg/l
724 Liquids with lead > 500 mg/l
725 Liquids with mercury > 20 mg/l
726 Liquids with nickel > 134 mg/l
727 Liquids with selenium > 100 mg/l
728 Liquids with thallium > 130 mg/l
741 Liquids with halogenated organic compounds > 1000 mg/l
751 Solids or sludges with halogenated organic compounds >1000mg/kg
791 Liquids with pH # 2
792 Liquids with pH # 2 with metals

Constituents of Concern

Flammables, corrosives, heavy metals, reactive, halogenated and non-halogenated solvents pharmaceuticals, and unused or off spec chemical formulations

Disposition

Although it is the initial goal to decontaminate the Unit #3 structural material for resale or scrap, section 5.2.2. of this plan provides four disposition options complete with related decision tree

Decontamination Performance Standards:

For structural materials refer to Appendix:	A1 Resale, A2 Scrap, A3 Non Hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non Hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For structural and related equipment refer to Appendix:	B5A Process Structures for Resale, B5B Scrap, B4A Equipment Resale, B4B Equipment Scrap, B4C Non Hazardous Waste, B4D Hazardous Waste
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For structural materials and equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #4 West Storage Building #1 Closure Activity Narrative

Equipment Description

There is no major equipment with the exception of a water sprinkler system.

Location/Area

The West Storage Building #1 is located at the south end of Tank Farm Q. Refer to figures B-03 and B-05b.

Capacity/Dimension

The West Storage Building #1 measures 58 feet by 29.3 feet and is divided into two identical bays. The bays are separated from each other with a 7-foot high center dividing wall that provides for segregated secondary containment of the storage of incompatible hazardous waste. The south end is open. The minimum berm height is 8". West Storage Building #1 has a roof and is protected by a water sprinkler system. The maximum capacity of total storage in containers is 18,480 gallons. The container type and size may vary.

Materials of Construction

Each bay consists of concrete slab constructed of nominal 6" concrete with #6 rebar spaced 12" on center each way and drains to a sump. The containment slab for both bays is surrounded on three sides by metal sheeting walls. The roof is comprised of metal framework and sheet metal skirting.

Waste Managed

Corrosive acids and alkaline materials that sometimes contain RCRA heavy metals such as spent acids, cleaning compounds, caustic solutions and miscellaneous metal bearing waste

Common Name

Containerized RCRA and non RCRA hazardous waste

US EPA / California Waste Codes

RCRA: D002, D004-D011, D018, F007-F009, F019, F039, K086

CWC: 121-123, 131-135, 141, 311, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721, 721-728, 791, 792

Constituents of Concern

Corrosive acids and caustic liquids and solids, heavy metal bearing liquids and solids

Disposition

Although it is the initial goal to decontaminate the Unit #4 structural material for resale and scrap, section 5.2.2. of this plan provides four disposition options complete with related decision tree

Decontamination Performance Standards:

For structural materials refer to Appendix:	A1 Resale, A2 Scrap, A3 Non Hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non Hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For structural and related equipment refer to Appendix:	B5A Process Structures for Resale, B5B Scrap, B4A Equipment Resale, B4B Equipment Scrap, B4C Non Hazardous Waste, B4D Hazardous Waste, B4E Corrosivity
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste, B1D Corrosivity

Decontamination Performance Confirmation:

For structural materials and equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Chemical Waste Mgmt, Inc CAT000646117 Kettleman City CA 932100000	Clean Harbors Environmental Services US EPA ID: ARD069748192 El Dorado, AR 71730	Ecology Control Industries CAD009466392 Richmond, CA 948010000
PHIBRO Tech, Inc CAD008488025 Santa Fe Springs, CA 906702515	Veolia Environmental Services US EPA ID: CAT080014079 Richmond, CA 94801	

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit # 5 West Storage Building #2 Closure Activity Narrative

Equipment Description

The only equipment in the West Building is an air scrubber system. The West Storage Building #2 is comprised of three separate compartments:

1. West Storage Building #2 South which may also be referred to as the Field Services Warehouse
2. West Storage Building #2 North which may also be referred to as the Clean Product Storage Area
3. A storage area for non-hazardous waste (see diagram below)

The West Storage Building #2 South also housed the Lab Pack Consolidation Unit (Unit #29) which is also referred to as the Scrubber Unit. Hazardous waste were stored or transferred in both the West Storage Building #2 North and South (excluding the Lab Consolidation Unit). The West Storage Building #2 has a roof and is protected by a sprinkler system using Aqueous Film Forming Foam.

Location/Area

The Unit is located inside the West Storage Building #2 excluding the Lab Pack Consolidation and Non Hazardous Waste Storage Areas. The West Storage Building is located at the west side of the Tank Farm Q. Refer to Figure B-03 and B-05b.

Capacity/Dimension

These two areas together measure 64 feet in length by 123 feet in width and consist of concrete slab. The east end of the building is open. The minimum berm height is eight (8) inches.

Materials of Construction

The building consists of a concrete slab constructed of nominal 6" concrete with #6 rebar spaced 12" on center each way. The containment slab is surrounded on three sides by a metal sheeting walls and an interior wall. The roof is comprised of metal framework and sheet metal skirting.

Waste Managed

Various sized containers up to 350 gallon bulk totes (including lab packs) containing various flammables, corrosives, heavy metals, reactives, halogenated and non-halogenated solvents pharmaceuticals, and unused or off spec chemical formulations.

Common Name

Containerized, bulk and lab pack waste

US EPA / California Waste Codes

RCRA: D001, D002, D004, D040, D043, F001-F005, P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U002-U004, U019, U031, U037, U055- U057, U070, U080, U108, U110, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239, U271, U278, U279, U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409-U411

CWC: 121-123, 131-135, 141, 151, 161, 162, 171, 172, 181, 211-214, 221-223, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 481, 491, 511-513, 541, 551, 561, 611, 612, 711, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammables, corrosives, heavy metals, reactives, halogenated and non-halogenated solvents pharmaceuticals, and unused or off spec chemical formulations.

Disposition

Although it is the initial goal to decontaminate the Unit #5 structural material and air scrubbing equipment for resale or scrap, section 5.2.2. of this plan provides four disposition options complete with related decision tree. Concrete will be left in place or removed after decontamination.

Decontamination Performance Standards:

For structural materials refer to Appendix:	A1 Resale, A2 Scrap, A3 Non Hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non Hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For structural and related equipment refer to Appendix:	B5A Process Structures for Resale, B5B Scrap, B4A Equipment Resale, B4B Equipment Scrap, B4C Non Hazardous Waste, B4D Hazardous Waste
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For structural materials and equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #6 Drum Pumping Area Closure Activity Description

This unit was never constructed nor was it authorized under the original permit.

Unit #7 Bin Storage Area Closure Activity Description

This unit was never constructed nor was it authorized under the original permit.

Unit #8 Tank Farm A Closure Activity Description

Equipment Description

Tank 1, Tank 4, Tank 8 and Tank 12 have elliptical or dome tops and bottoms and are vertically installed on legs. Tank 2, Tank 3, Tank 5, Tank 6, Tank 7, Tank 9, Tank 10 and Tank 11 all have cone heads and a three-inch slope across the bottom. These tanks are installed vertically and rest on the tank farm foundation.

Tanks K, Tank L, and Tank M are equipped with agitators. These tanks are suspended vertically in a structural frame to a height of about 22 feet.

Location/Area

Tank Farm A is located east of the Production Area. Refer to Figures B-03 and B-04.

Capacity/Dimension and Materials of Construction

Tank Farm A has secondary containment that is 60.8 feet by 42.6 feet long. The tank farm is shaped like a rectangle with an irregular southwest corner. The concrete block wall is 8 inches thick and 28 inches high. The available secondary containment for tank storage is 40,799 gal. Refer to the following list for specific tank information for Unit #8.

Tank Number	Permit Capacity	Diameter	Height ⁽¹⁾	Configuration Vertical	Construction materials
Tank 1	4,200	7'	16' 10"	Dome Bottom on Legs	Stainless Steel
Tank 2	5,093	8' 6"	12'	Flat Bottom	Stainless Steel
Tank 3	5,093	8' 6"	12'	Flat Bottom	Stainless Steel
Tank 4	4,555	9' 6"	11' 4"	Dome Bottom on Legs	Carbon Steel
Tank 5	6,360	9' 6"	12'	Flat Bottom	Stainless Steel
Tank 6	5,093	8' 6"	12'	Flat Bottom	Stainless Steel
Tank 7	5,093	8' 6"	12'	Flat Bottom	Stainless Steel
Tank 8	4,555	9' 6"	11' 4"	Dome Bottom on Legs	Carbon Steel
Tank 9	6,360	9' 6"	12'	Flat Bottom	Stainless Steel
Tank 10	5,093	8' 6"	12'	Flat Bottom	Stainless Steel
Tank 11	5,093	8' 6"	12'	Flat Bottom	Stainless Steel

Tank 12	4,555	9' 6"	11' 4"	Dome Bottom on Legs	Carbon Steel
Tank K	9,230	10' 6"	22'	Suspended	Carbon Steel
Tank L	9,230	10' 6"	22'	Suspended	Carbon Steel
Tank M	9,230	10' 6"	22'	Suspended	Carbon Steel
TOTAL	75,182				

Waste Managed

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
4. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
5. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
6. Wastewater
7. Miscellaneous metal bearing waste

Common Name

Waste Solvent

US EPA / California Waste Codes

RCRA: D001, D002, D004-D011, D018, D019, D021-D036, D038, D039, D043, F001-F009, F037-F039, K048-K052, K086, K087, K156, K159, K169-K172, U002-U004, U019, U031, U037, U055-U057, U070, U080, U108, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 161, 162, 181, 211-214, 221-223, 231, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341-343, 351, 352, 451, 461, 471, 491, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammable chlorinated and non chlorinated solvents, waste antifreeze and miscellaneous metal bearing waste

Disposition

Although it is the initial goal to decontaminate the Unit #8 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #9 Tank Farm B Closure Activity Narrative

Equipment Description

Tanks R91, R92, R93, R94, and R95 are cylindrical tanks elevated off the ground and are installed vertically to a height of 17 feet. The tanks have elliptical tops and hemispherical bottoms. The tanks are plumbed with valves and pipes that permit filling and offloading from the bottom. These tanks are equipped with agitators to assist in the fuel blending process. The tanks are elevated.

Location/Area

Tank Farm B is located directly east of Tank Farm A. Refer to Figures B-03 and B-04.

Capacity/ Dimension and Materials of Construction

Tank Farm B has a rectangular shaped secondary containment that is about 60.8 feet by 14.8 feet long. The concrete block wall is 8 inches thick and 2.4 feet high. The available secondary containment for tank storage is 16,143 gallons. Refer to the following list for specific tank information.

Unit #9 Major Equipment List

Tank Number	Permit Capacity	Diameter	Height ⁽¹⁾	Configuration Vertical	Construction materials
Tank R91	4743	8'6"	17'	Suspended	Carbon Steel
Tank R92	4743	8'6"	17'	Suspended	Carbon Steel
Tank R93	4743	8'6"	17'	Suspended	Carbon Steel
Tank R94	4743	8'6"	17'	Suspended	Carbon Steel
Tank R95	4743	8'6"	17'	Suspended	Carbon Steel
TOTAL	23,715				

(1) Height is defined as the total installed height (not including the height of any dome or cone top)

Additional equipment includes stainless and carbon steel piping and pumps

Waste Managed

8. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
9. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
10. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
11. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
12. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
13. Wastewater
14. Miscellaneous metal bearing waste

Common Name

Waste Solvent

US EPA / California Waste Codes

RCRA: D001, D002, D004-D011, D018, D019, D021-D036, D038, D039, D043, F001-F006, F037-F039, K048-K052, K086, K087, K156, K159, K169-K172, U002-U004, U019, U031, U037, U055-U057, U070, U080, U108, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 161, 162, 181, 211-214, 221-223, 231, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341-343, 351, 352, 451, 461, 471, 491, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammable chlorinated and non chlorinated solvents, waste antifreeze and miscellaneous metal bearing waste

Disposition

Although it is the initial goal to decontaminate the Unit #9 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC	Clean Harbors Environmental	Pollution Control Industries
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EPA ID No.: ARD069748192 El Dorado, AR 71730	Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below
Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #10 Tank Farms C, L, R Closure Activity Narrative

Equipment Description

Tank farm C consisted of tanks A, B, C, D, E, F, G, H, I and J which previously permitted and have since been closed and removed prior to facility closure.

Tank farm L consists of tanks 44, 45, 46 and 47 which are made of stainless steel and hold a volume capacity of 8,800 gallons each, and tanks 48, 49 and 50 which are also made of stainless steel and hold a volume capacity of 4,000 gallons each.

Tank farm R consists of tanks 24 and 25 which are made of carbon steel and hold a volume capacity of 3,400 gallons each.

Location/Area

Tank Farm CLR is located east of the Production Area and between Tank Farm MNO and Tank Farm A. Refer to Figures B-03 and B-04.

Capacity/Dimension and Materials of Construction

Tank Farm CLR is comprised of Tank Farm C, Tank Farm L, and Tank Farm R.

Tank Farm CLR has an approximate rectangular shaped secondary containment. The secondary containment for Tank Farm C is 30 feet long by 27.5 feet wide. The secondary containment for Tank Farm L is about 39.5 feet long by 29.8 feet wide. The secondary containment for Tank Farm R is about 30 feet long by 13.8 feet wide. The surrounding concrete block wall is eight (8) inches thick and 26 inches high. The current available secondary containment for tank storage is about 20,078 gallons for Tank Farm C and Tank Farm R which both share the available secondary containment. Tank Farm L has a current available secondary containment of 29,940 gallons and is separated by a wall from Tank Farm C.

Please refer to the following equipment list of specific tank information.

Unit #10 Major Equipment List

Tank Number	Permit Capacity Gallon	Diameter	Height	Configuration Vertical	Construction materials
Tank 44	8800	10 ft	15 ft	Flat Bottom	Stainless Steel
Tank 45	8800	10 ft	15 ft	Flat Bottom	Stainless Steel
Tank 46	8800	10 ft	15 ft	Flat Bottom	Stainless Steel
Tank 47	8800	10 ft	15 ft	Flat Bottom	Stainless Steel
Tank 48	4000	7 ft 6 in	16 ft	Cone Bottom	Stainless Steel
Tank 49	4000	7 ft 6 in	16 ft	Cone Bottom	Stainless Steel
Tank 50	4000	7 ft 6 in	16 ft	Cone	Stainless

				Bottom	Steel
Tank 24	3400	7 ft 6 in	13.6 ft	Dome Bottom	Carbon Steel
Tank 25	3400	7 ft 6 in	13.6 ft	Dome Bottom	Carbon Steel

Additional Equipment includes stainless and carbon steel piping and pumps

Waste Managed

15. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
16. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
17. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
18. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
19. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU> 5,000, any semi-solid or solid organic bearing material with BTU value> 5,000
20. Wastewater
21. Miscellaneous metal bearing waste

Common Name

Waste Solvent

US EPA / California Waste Codes

RCRA: D001, D002, D004-D011, D018, D019, D021-D036, D038, D039, D043, F001-F006, F037-F039, K048-K052, K086, K087, K156, K159, K169-K172, U002-U004, U019, U031, U037, U055-U057, U070, U080, U108, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 161, 162, 181, 211-214, 221-223, 231, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341-343, 351, 352, 451, 461, 471, 491, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammable chlorinated and non chlorinated solvents, waste antifreeze and miscellaneous metal bearing waste

Disposition

Although it is the initial goal to decontaminate the Unit #10 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #11 Tank Farm D Closure Activity Narrative

Equipment Description

Tanks R96 and R97 are cylindrical tanks and have cone heads with sloped bottoms. The tanks are plumbed with valves, and pipes. Both tanks include level instrumentation that indicates the liquid level in each tank and temperature gauges. These vertically oriented cylindrical tanks are fabricated from carbon steel. Although these tanks were proposed to be replaced with tanks made of a higher gauge steel the replacement tanks were never constructed and the original tanks were never replaced.

Location/Area

Tank Farm D is located south of Tank Farm A and Tank Farm B. Refer to Figures B-03 and B-04.

Capacity/Dimension

Tank Farm D has a rectangular shaped secondary containment that is 14.7 feet wide by 26.7 feet long. The concrete block wall will be 8 inches thick and 30 inches high. The available secondary containment for tank storage will be 5,436 gallons. Specific tank information is provided below

Unit #11 Major Equipment List

Tank Number	Permit Capacity Gallon	Diameter	Height ⁽¹⁾	Configuration Vertical	Construction materials
Tank 96	11,750	10'	20'	Flat Bottom	Carbon steel
Tank 97	11,750	10'	20'	Flat Bottom	Carbon steel
TOTAL	23,500				

(1) Height is defined as the total installed height (not including the height of any dome or cone top)

Additional equipment consists of stainless and carbon steel piping and pumps.

Waste Managed

- 22. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
- 23. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
- 24. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
- 25. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
- 26. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
- 27. Wastewater
- 28. Miscellaneous metal bearing waste

US EPA / California Waste Codes

RCRA: D001, D002, D004-D011, D018, D019, D021-D036, D038, D039, D043, F001-F006, F037-F039, K048-K052, K086, K087, K156, K159, K169-K172, U002-U004, U019, U031, U037, U055-U057, U070, U080, U108, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 161, 162, 181, 211-214, 221-223, 231, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341-343, 351, 352, 451, 461, 471, 491, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammable chlorinated and non chlorinated solvents, waste antifreeze and miscellaneous metal bearing waste

Disposition

Although it is the initial goal to decontaminate the Unit #11 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192	Clean Harbors Environmental Services, Inc.	Pollution Control Industries EPA ID No.: IND000646943
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El Dorado, AR 71730	EPA ID No.: NED981723513 Kimball, NE 69145	East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below
Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #12 Tank Farm E Closure Activity Description

HWMU #12, Tank farm E was planned but never constructed. If built Unit #12 would have included Tanks N, O, R90, A-6 and A-7

Unit #13 Tank Farm G Closure Activity Description

Equipment Description

Tank Farm G consisted of Tanks 16, 17, 18, 19, 20 and 21. These tanks were not permitted and never received, stored or processed hazardous waste.

Tank farm G also consisted of Reboiler's 37 and 49.

Location/Area

Tank Farm G is located west of the Production Area between Tank Farm H and Tank Farm I. Refer to Figures B-03 and B-04.

Capacity/Dimension and Materials of Construction

Tank Farm G has a rectangular shaped secondary containment that is 39.5 feet by 19.5 feet. The concrete block wall is 8 inches thick and 16 inches high. The following list provides fluid capacity and physical dimensions for all major equipment pieces.

Unit #13 Major Equipment List

Tank Number	Permit Capacity Gallon	Diameter	Height	Configuration Vertical	Construction materials
Tank 16	1,962	5 ft 3 in	12 ft	Cone Bottom	Stainless Steel
Tank 17	1,962	5 ft 3 in	12 ft	Cone Bottom	Stainless Steel
Tank 18	535	4 ft	5 ft 8 in	Cone Bottom	Stainless Steel
Tank 19	1,962	5 ft 3 in	12 ft	Cone Bottom	Stainless Steel
Tank 20	1,962	5 ft 3 in	12 ft	Cone Bottom	Stainless Steel
Tank 21	1,895	4 ft 9 in	13 ft 6 in	Dome Bottom	Carbon Steel
Tank R37	6,100	7 ft 6 in	16 ft	Cone Bottom	Stainless Steel
Tank R49	15,792	13 ft	22 ft	Cone Bottom	Stainless Steel

Additional equipment consists of stainless and carbon steel piping and pumps.

Waste Managed

29. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
30. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
31. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
32. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
33. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
34. Wastewater
35. Miscellaneous metal bearing waste

Common Name

Fuel Blending Solvent

US EPA / California Waste Codes

RCRA: D001, D002, D004-D011, D018, D019, D021-D036, D038, D039, D043, F001-F006, F037-F039, K048-K052, K086, K087, K156, K159, K169-K172, U002-U004, U019, U031, U037, U055-U057, U070, U080, U108, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 161, 162, 181, 211-214, 221-223, 231, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341-343, 351, 352, 451, 461, 471, 491, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammable chlorinated and non chlorinated solvents, waste antifreeze and miscellaneous metal bearing waste

Disposition

Although it is the initial goal to decontaminate the Unit #13 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC	Clean Harbors Environmental	Pollution Control Industries
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EPA ID No.: ARD069748192 El Dorado, AR 71730	Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #14 Tank Farm H Closure Activity Description

Equipment Description

Tank farm H consists of tanks T26, T27, T28, T29, T30 AND T31. Tanks are plumbed with valves, pipes and a manifold. The tanks are all vertically oriented cylindrical tanks fabricated from mild steel plates. All the tanks rest on the slab

Location/Area

Tank Farm H is located north of Tank Farm G. Refer to Figures B-03 and B-04.

Capacity/Dimension and Materials of Construction

Tank Farm H has a rectangular shaped secondary containment that is 40 feet by 24.6 feet. The concrete block wall is 8 inches thick and 40 inches high. The available secondary containment for tank storage is 12,276 gallons. Specific tank information is provided below.

Unit #14 Major Equipment List

Tank Number ⁽¹⁾	Permit Capacity	Diameter	Height ⁽²⁾	Configuration Vertical	Construction materials
Tank T26	8,800	10'	15'	Flat Bottom	Stainless Steel
Tank T27	7,138	10'	15'	Flat Bottom	Stainless Steel
Tank T28	8,800	10'	15'	Flat Bottom	Stainless Steel
Tank T29	8,800	10'	15'	Flat Bottom	Stainless Steel
Tank T30	8,800	10'	15'	Flat Bottom	Stainless Steel
Tank T31	8,800	10'	15'	Flat Bottom	Stainless Steel
TOTAL	105,600				

(1) Indicates that the tank is an existing tank but previously not permitted for hazardous waste storage or treatment.

(2) Height is defined as the total installed height (not including the height of any dome or cone top)

Additional equipment consists of stainless and carbon steel piping and pumps.

Waste Managed

Fuel Blending Tanks and Related Piping

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol

4. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
5. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
6. Wastewater
7. Miscellaneous metal bearing waste

Common Name

Fuel blending solvent

US EPA / California Waste Codes

RCRA: D001, D002, D004-D011, D018, D019, D021-D036, D038, D039, D043, F001-F006, F037-F039, K048-K052, K086, K087, K156, K159, K169-K172, U002-U004, U019, U031, U037, U055-U057, U070, U080, U108, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 161, 162, 181, 211-214, 221-223, 231, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341-343, 351, 352, 451, 461, 471, 491, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammable chlorinated and non chlorinated solvents, waste antifreeze and miscellaneous metal bearing waste

Disposition

Although it is the initial goal to decontaminate the Unit #14 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC	Clean Harbors Environmental	Pollution Control Industries
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EPA ID No.: ARD069748192 El Dorado, AR 71730	Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #15 Tank Farm I Closure Activity Description

Equipment Description

Tanks are plumbed with valves, pipes and a manifold. All tanks are cylindrical and vertically oriented fabricated from mild steel plates. Some of the tanks rest on the slab, some are on legs and some are horizontal on saddles. The identification numbers for seven of the tanks has been changed since they were originally permitted (see below). Tanks 81, 86, 87, a reverse osmosis system and an oil filter were planned but were never constructed.

Location/Area

Tank Farm I is located west of the Production Area. Refer to Figures B-03 and B-04.

Capacity/Dimension and Materials of Construction

Tank Farm I has an irregularly shaped secondary containment that is 94 feet long by 39 feet at it most narrow side and 39 feet at it most wide. The concrete block wall is 8 inches thick and 14 inches high. The available secondary containment for tank storage is 20,916 gallons. Specific tank information is provided below.

Unit #15 Major Equipment List

Old Tank Number	New Tank Number	Permit Capacity	Diameter	Height ⁽¹⁾	Configuration Vertical	Construction materials
Tank 78	Tank T83	11,655	10'	26' 2"	Cone Bottom	Carbon Steel
Tank 79	Tank T84	11,655	10'	26' 2"	Cone Bottom	Carbon Steel
Tank 80	Tank T85	11,655	10'	26' 2"	Cone Bottom	Carbon Steel
Tank 82	Tank T101	11,655	10'	26' 2"	Cone Bottom	Carbon Steel
Tank 83	Tank T102	11,655	10'	26' 2"	Cone Bottom	Carbon Steel
Tank 84	Tank T104	11,655	10'	26' 2"	Cone Bottom	Carbon Steel
Tank 85	Tank T105	11,655	10'	26' 2"	Cone Bottom	Carbon Steel
Tank R35		4,670	8'6"	14'	Horizontal	Stainless Steel
Tank R36		7,500	10'6"	8'8"	Horizontal	Stainless Steel
Tank R42		9,400	10' 6"	23'2"	Elliptical Bottom on legs	Stainless Steel
Tank R43		6,996	11'	19'4"	Elliptical Bottom on legs	Stainless Steel
Tank R48		9,300	7'	31'	Horizontal	Carbon Steel
	TOTAL	119,451				

(1) Height is defined as the total installed height (not including the height of any dome or cone top)

Additional equipment includes stainless and carbon steel piping and pumps

Waste Managed

Fuel Blending Tanks and Related Piping

36. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
37. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
38. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
39. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
40. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
41. Wastewater
42. Miscellaneous metal bearing waste

Common Name

Fuel blending solvent

US EPA / California Waste Codes

RCRA: D001, D002, D004-D011, D018, D019, D021-D036, D038, D039, D043, F001-F006, F037-F039, K048-K052, K086, K087, K156, K159, K169-K172, U002-U004, U019, U031, U037, U055-U057, U070, U080, U108, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 161, 162, 181, 211-214, 221-223, 231, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341-343, 351, 352, 451, 461, 471, 491, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammable chlorinated and non chlorinated solvents, waste antifreeze and miscellaneous metal bearing waste

Disposition

Although it is the initial goal to decontaminate the Unit #15 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #16 Tank Farm M, N, O Closure Activity Narrative

Equipment Description

Tanks are plumbed with valves, pipes and a manifold which permit filling from the top and offloading from the bottom of the tanks. Each tank is equipped with a sonic level indicator. The tanks are all vertically oriented cylindrical tanks fabricated from mild steel plates. All of the tanks rest on the slab. There is allowance for the displacement of tank footprints.

Location

Tank Farm MNO is located directly north of Tank Farm CLR. Refer to Figures B-03 and B-04.

Capacity/Dimension

Tank Farm MNO has a rectangular shaped secondary containment that is 24.6 feet wide by 86.4 feet long. The concrete block wall is 8 inches thick and 24 inches high. The available secondary containment for tank storage is 17,699 gallons. The following list provides fluid capacity and physical dimensions for all major equipment pieces for Unit #16

Unit #16 Major Equipment List

Tank Number	Permit Capacity	Diameter (feet, inches)	Height ⁽¹⁾ (feet, inches)	Minimum Shell Thickness (inches)	Configuration Vertical	Construction materials
Tank T32	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T33	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T34	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T35	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T36	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T37	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T38	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T39	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T40	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T41	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T42	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
Tank T43	8,800	10 feet	15 feet	.099	Flat Bottom	Stainless Steel
TOTAL	105,600					

(1) Height is defined as the total installed height (not including the height of any dome or cone top)

Additional equipment includes stainless and carbon steel piping and pumps

Waste Managed

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
4. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks.
5. Wastewater
6. Miscellaneous metal bearing waste

Common Name

Fuel blending solvent

US EPA / California Waste Codes

RCRA: D001, D002, D004-D011, D018, D019, D021-D036, D038, D039, D043, F001-F006, F037-F039, K048-K052, K086, K087, K156, K159, K169-K172, U002-U004, U019, U031, U037, U055-U057, U070, U080, U108, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 161, 162, 181, 211-214, 221-223, 231, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341-343, 351, 352, 451, 461, 471, 491, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammable chlorinated and non chlorinated solvents, waste antifreeze and miscellaneous metal

Disposition

Although it is the initial goal to decontaminate the Unit #16 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192	Clean Harbors Environmental Services, Inc.	Pollution Control Industries EPA ID No.: IND000646943
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El Dorado, AR 71730	EPA ID No.: NED981723513 Kimball, NE 69145	East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #17 Tank Farm Q Closure Activity Narrative

Equipment Description

Tanks are plumbed with valves, pipes and a manifold which permit filling from the top and offloading from the bottom of the tanks. Tanks AES1, AES2, AES3 and AES4 are be equipped with sonic level indicators. Tanks 25, 60, 62, 63, 66, 67, 68, 69, 70, 72, 73, 74, 76 and 77 never received, stored or processed hazardous waste. Tanks were filled and emptied from the bottom.

Location/Area

Unit #17 tanks are located next to the West Building Storage Unit #4. Refer to Figures B-03 and B-05b.

Capacity/Dimension and Materials of Construction

Tank Farm Q has an irregularly shaped secondary containment that is 74 feet wide by 126 feet long. The concrete block retaining wall is 8 inches thick and 32 inches high. The available secondary containment for tank storage is 153,164 gallons.

Unit #17 Major Equipment List

Tank Number	Permit Capacity	Diameter	Height⁽¹⁾	Configuration Vertical	Construction Materials
Tank AES-1	11,160	12'	15'6"	Flat Bottom	Stainless steel
Tank AES-2	11,160	12'	23'	Flat Bottom	Stainless steel
Tank AES-3	11,160	12'	23'	Flat Bottom	Stainless steel
Tank AES-4	11,160	9'6"	24'	Flat Bottom	Stainless steel
Tank 61	13,113	10'	19'	Flat Bottom	Stainless steel
Tank 64	19,400	10'	19'	Flat Bottom	Carbon steel
Tank 65	19,400	10'	19'	Flat Bottom	Carbon steel
Tank 71	28,000	12'	19'	Flat Bottom	Carbon steel
Tank 75	12,700	10'	19'	Flat Bottom	Stainless steel
Tank 25	4,600	6' 10'	17'	Flat Bottom	Carbon steel
Tank 60	13,000	12'	15' 6"	Flat Bottom	Carbon steel
Tank 62	13,600	12'	16' 3"	Flat Bottom	Carbon steel
Tank 63	20,000	12'	24'	Flat Bottom	Carbon steel
Tank 66	24,823	12' 9"	21'	Flat Bottom	Carbon steel
Tank 67	20,616	11'	35'	Flat Bottom	Carbon steel

Tank 68	30,000	16' 8"	13"	Flat Bottom	Carbon steel
Tank 69	24,823	12' 10"	36"	Flat Bottom	Carbon steel
Tank 70	126,904	30'	24'	Flat Bottom	Carbon steel
Tank 72	2,000	6'	9'	Flat Bottom	Carbon steel
Tank 73	11,990	10' 6"	19'	Flat Bottom	Carbon steel
Tank 74	11,990	10' 6"	19'	Flat Bottom	Carbon steel
Tank 76	27,637	14'	24' 6"	Flat Bottom	Carbon steel
Tank 77	27,088	14'	23' 9"	Flat Bottom	Carbon steel
TOTAL	494,324				

(1) Height is defined as the total installed height (not including the height of any dome or cone top)

Additional equipment consists of stainless steel and carbon steel piping and pumps

Waste Managed

Fuel Blending Tanks and Related Piping

- 43. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
- 44. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
- 45. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
- 46. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
- 47. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
- 48. Wastewater
- 49. Miscellaneous metal bearing waste

ASE Tanks and Related Piping

Ethylene Glycol, Propylene Glycol, Tri-Ethylene Glycol

Common Name

Fuel Blending Tanks

Waste solvents and metal bearing liquids waste

AES Tanks

Antifreeze

US EPA / California Waste Codes

Fuel Blending Tanks

RCRA: D001, D002, D004-D011, D018, D019, D021-D036, D038, D039, D043, F001-F006, F037-F039, K048-K052, K086, K087, K156, K159, K169-K172, U002-U004, U019, U031, U037, U055-U057, U070, U080, U108, U112, U121, U122, U140, U154, U159, U161, U209-U211, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 161, 162, 181, 211-214, 221-223, 231, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341-343, 351, 352, 451, 461, 471, 491, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 751, 791, 792

AES Tanks

Ethylene Glycol

Constituents of Concern

Flammable chlorinated and non chlorinated solvents, waste antifreeze and miscellaneous metal.

Disposition

Although it is the initial goal to decontaminate the Unit #17 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
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For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #18 Biological Treatment System Tanks Closure Activity Narrative

Equipment Description

The Biological Treatment System consists of eleven tanks, two sand filters, an ultraviolet oxidation unit, a carbon adsorption filter, and an ion exchange bed. Some of the tanks rest on the slab, some are on legs and some are horizontal on saddles.

A UV/OX system consists of 2 reactors. The reactors are mounted vertically on two skids. The system includes hoses, valves, and ports that allow the UV system flow to operate either in parallel or series configuration.

A resin ion exchange bed is enclosed in two 320-gallon tanks and the activated carbon bed is enclosed in a 414-gallon tank. These two process units are installed vertically with their own secondary containment systems empty into the existing secondary containment of Tank Farm K.

Location/Area

Tank Farm K, south of the Production Area. Refer to Figures B-03 and B-06.

Component Capacity/Dimension and Materials of Construction

Tank Farm K has a rectangular shaped secondary containment 45.4 feet wide by 92.2 feet long. The concrete block wall is 8 inches thick and 34 inches high. The available secondary containment for tank storage is 44,165 gallons. Specific equipment dimensions and capacities are listed below

Unit #1 Major Equipment List

Tank Number	Permit Capacity	Diameter (feet, inches)	Height ⁽¹⁾ (feet, inches)	Minimum Shell Thickness (inches)	Configuration Vertical	Construction materials
Tank B-2	25,000	20 feet	11 feet 4 inches	.098	Flat Bottom	Carbon Steel
Tank B-3	25,000	17 feet	16 feet	.117	Flat Bottom Open top	Carbon Steel
Tank B-3A	25,000	17 feet	16 feet	.117	Flat Bottom Open top	Carbon Steel
Tank B-4	16,000	24 feet (length)	10 feet (width)	.150	Flat Bottom Open top	Carbon Steel
Tank B-4A	16,000	24 feet (length)	10 feet (width)	.150	Flat Bottom Open top	Carbon Steel
Tank B-5	5,000	10 feet	10 feet	.064	Flat Bottom	Carbon Steel
Tank B-6	5,000	12 feet	11 feet	.069	Flat Bottom Open top	Carbon Steel
Tank B-6A	5,000	12 feet	11 feet	.069	Flat Bottom Open top	Carbon Steel
Tank B-7	5,000	10 feet	10 feet	.064	Flat Bottom	Carbon Steel
Tank B-8 ⁽¹⁾	375	5 feet (length)	4 feet (width)	.135	Open head cone bottom	Stainless Steel
Tank T-13	25,000	20 feet	11 feet 4 inches	.089	Flat Bottom	Carbon Steel
Sand Filter #1	475	3 feet	9 feet	.180	Flat Bottom	Fiberglass re-enforced plastic
Sand Filter #2	475	3 feet	9 feet	.180	Flat Bottom	Fiberglass re-enforced plastic

Carbon Bed	414	3 feet	9 feet	.180	Flat Bottom	Carbon Steel
Ion Exchange	640	3 feet	9 feet	.180	Flat Bottom	Carbon Steel
Trojan UV Sys.						Stainless Steel
TOTAL	154,379					

(1) Indicate that the tank is existing but not previously permitted for hazardous waste storage or treatment

Waste Managed

Wastewater residuals from the above listed Waste Management Units resulting from the treatment of the following waste:

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Waste antifreeze, such as ethylene glycol, propylene glycol,
4. Corrosives: acids and alkaline materials that may contain RCRA heavy metals such as spent acids, cleaning compounds, caustic solutions.
5. Miscellaneous metal bearing waste
6. Non-pumpable sludge, semi-solid waste, filter cake, contaminated soils
7. Contaminated tanker trucks

Common Name

Wastewater

US EPA / California Waste Codes

RCRA: D002, D004-D011, D018, D019, D021-D029, D032-D036, D038-D040, D043, F001-F005, F037- F039, K048 - K052, K086, K087, U002, U003, U019, U031, U037, U056, U057, U070, U080, U112, U121, U140, U154, U159, U161, U209, U210, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 211, 212, 214, 221, 222, 223, 281, 291, 311, 331, 341, 342, 343, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 791, 792

Constituents of Concern

Pre-treated wastewater containing hazardous constituents by ingestion or skin contact

Disposition

Although it is the initial goal to decontaminate the Unit #18 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #19 Neutralization Tank Farm J Closure Activity Narrative

Equipment Description

Tanks NT-1, NT-2, and NT-3 are all vertically oriented cylindrical tanks. Tanks are plumbed with valves, pipes and a manifold connected for each tank. Each tank is constructed of carbon steel containing an epoxy coating.

Location/Area

Neutralization Tank Unit is located in Tank Farm J, west of Tank Farm I. Refer to Figures B-03 and B-04.

Capacity/Dimension

Tank Farm J has rectangular shaped secondary containment that is 18.4 feet wide by 8.5 feet long. The concrete block wall is 8 inches thick and 15 inches high. The available secondary containment for tank storage is 1,459 gallons.

Unit #19 Major Equipment List

Tank Number	Diameter	Height	Capacity	Construction Material
NT-1	3'10"	10'5"	580	Rubber Lined CS
NT-2	3'10"	9'6"	580	Rubber Lined CS
NT-3	3'10"	8'10"	580	Rubber Lined CS

Additional equipment is a pH meter and pumps

Materials of Construction

Tanks are made of carbon steel with synthetic liners

Containment area consists of concrete slab constructed of nominal 6" concrete with #6 rebar spaced 12" on center each way and drains to a sump.

Waste Managed ;

Corrosive acids and alkaline materials that sometimes contain RCRA heavy metals such as plating waste and cleaning compounds.

Common Name

RCRA and non RCRA hazardous waste

US EPA / California Waste Codes

RCRA: D002, D004-D011, D018, D019, D021-D029, D032-D036, D038-D040, D043, F001-F005, F037- F039, K048 - K052, K086, K087, U002, U003, U019, U031, U037, U056, U057, U070, U080, U112, U121, U140, U154, U159, U161, U209, U210, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 211, 212, 214, 221, 222, 223, 281, 291, 311, 331, 341, 342, 343, 521, 541, 551, 561, 571, 581, 591, 611, 612, 721-728, 741, 791, 792

Constituents of Concern

Corrosive and heavy metal bearing acids and caustic liquids

Disposition

Although it is the initial goal to decontaminate the Unit #19 tanks and equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1, Tanks for Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For equipment refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste, B3E Corrosivity
For equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste, B4E Inaccessible Interiors B4E Corrosivity
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Hazardous

	Waste B1D Corrosivity
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Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312

Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640
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Unit #20 Tank Farm F Closure Activity Description

HWMU #20, Tank farm F was planned but never constructed. If built Unit #20 would have included Tanks A-1, A-2, A-3, A-4, A-5, a refrigerant distillation unit, an ion exchange bed, a regeneration unit, and an electro-deposition unit.

Unit #21 Tank Farm S Closure Activity Description

HWMU #21, Tank farm S was planned but never constructed. If built Unit #21 would have included Tanks 78, 79, 80 and 82.

Unit #22 Tank Farm T Closure Activity Description

HWMU #22, Tank farm T was planned but never constructed. If built Unit #22 would have included Tanks 106, 107, 108 and 109.

Unit #23 Fractionation Unit Closure Activity Narrative

Equipment Description

The Fractionation Unit serves to remove solids and select contaminants from waste solvent and consists of a series of nine tall stainless steel towers called columns and their associated reboilers. Each of the columns is a vertical enclosed vessel with multiple horizontal trays that allow contact between the rising vapors and the falling liquid. Several different types of trays are used in the columns. The support equipment associated with the columns includes reboilers and condensers. The fractionation system also includes reboilers R36, R37, R42, R43, R48 and R49 which are located in Unit #15. Column 34 and reboiler 34 were planned but never constructed. Tanks 88 and 89 were planned but never constructed.

Location/Area

The Fractionation Unit is located in the Production Area. Refer to Figures B-03 and B-04.

Component Capacity/Dimension

Unit 23# resides inside the production area containment pad having an irregularly shaped secondary containment that is 5,250 sq. ft. Containment access is provided by the use of ramps and small curbs. The available secondary containment for tank storage is 9,485 gallons. The following list provides fluid capacity and physical dimensions for all major equipment pieces in Unit #23.

Unit #23 Major Equipment List

Column	Capacity (gallons)	Diameter	Height
C24	350	24"	23'1"
C32	630	32"	47'7"
C35	790	38"	47'5"
C36	790	36"	83'8"

C37	790	37"	54'10"
C42	1060	42"	71'6"
C43	1060	43"	59'9"
C48	1400	46"	61'8"
C49	1400	45"	75'10"
Reboiler		Diameter	Height
R24	830	7'	14'5"
R32	3,647	7'	19'3"

Additional equipment consists of Heat Exchanger, Condenser, Reflux Pump, Overhead Separator, Plate and Frame Condenser, Plate and Frame Chilling Condenser, Piping

Materials of Construction

Materials used in the construction of **columns** are stainless steel, carbon steel, galvanized sheet metal and carbon steel fittings.

Materials used in the construction of **reboilers** are stainless steel, carbon steel, and galvanized sheet metal and carbon steel fittings.

Materials used in the construction of **piping** are stainless steel and carbon steel.

Waste Managed

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, Xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
4. Wastewater

Common Name

Solvent and petroleum based by-products suitable for fuel blending

US EPA / California Waste Codes

RCRA: D001, D004, D008, D018, D019, D021-D029, D032-D036, D038-D040, D043, F001-F005, F037-F039, K048-K052, K086, K087, U002, U003, U019, U031, U037, U056, U057, U070, U080, U112, U121, U140, U154, U159, U161, U209, U210, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 211, 212, 213, 214, 221, 222, 223, 251, 252, 281, 291, 331, 341, 342, 343, 521, 541, 551, 561, 612, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751, 791, 792

Constituents of Concern

Chlorinated and non chlorinated flammable solvents, petroleum by-products, miscellaneous metals.

Disposition

Although it is the initial goal to decontaminate the Unit 23 solvent distillation equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For columns, reboilers refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For miscellaneous equipment refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For framework refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For columns, reboilers refer to Appendix	B6A Distillation Systems for Resale, B6B Distillation Scrap, B6C Distillation Non hazardous Waste, B6D Distillation Hazardous, B7A Tanks for Resale, B7B Tank Scrap, B7C Non Hazardous Waste, B7D Hazardous
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For miscellaneous equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
For framework refer to Appendix:	B2A Framework for Resale, B2B Scrap
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For columns, reboilers refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For miscellaneous equipment refer to Appendix:	C1 Equipment and Structures
For framework refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #24 Vacuum Pot Unit Closure Activity Narrative

Equipment Description

There are two vac pots, located in the production area. Both vac pots are piped to receiver Tank T-24, and Tank T-25 located in Tank Farm CLR. Each of the vac pots is a tank used to hold the waste and allow it to be heated. The vac pot tanks include nozzles for high and low level probes, temperature indicators, waste inlet, bottoms outlet, and vapor outlet. Both Vac Pot 24 and 25 have dish top heads and bottom cones and are installed on legs.

There are two vac pot receiver Tanks (T-24 and Tank T-25) that have dish tops, dish bottoms and are installed on skirts. The tanks are mounted vertically and measure 13 feet 6 inches as installed. These tanks are piped to their respective vac pots and are equipped with sight glass.

Location/Area

Located mainly in the production area and the two receiving tanks are located in Tank Farm CLR. Refer to Figures B-03 and B-04.

Component Capacity/Dimension

The production area has an irregularly shaped secondary containment that is 5,250 sq. ft. Containment is provided by the use of ramps and small curbs. The available secondary containment for tank storage is 9,485 gallons. Specific capacities and dimensions of the vac pots and tanks are as follows.

Vacuum Pot Distillation Unit #24 Major Equipment List

ID Number	Capacity (gallons)	Diameter	Height	Construction Material
Vac Pot 24	1,525	5' 6"	12' 6"	Carbon Steel
Vac Pot 25	2,234	5' 6"	14' 4"	Carbon Steel

Additional equipment consists of internal and external heating coils, knockout separator, condenser, transfer pumps, distillate receivers, and piping.

Materials of Construction

Materials used in the construction of **internal and external heating coils, knockout separator, condenser, transfer pumps, distillate receivers**, are carbon steel and mild steel alloys.

Materials used in the construction of **piping** are carbon steel, and mild steel alloys.

Waste Managed

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, Xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
4. Wastewater

Common Name

Solvent and petroleum based by-products suitable for fuel blending

US EPA / California Waste Codes

RCRA: D001, D004, D008, D018, D019, D021-D029, D032-D036, D038-D040, D043, F001-F005, F037-F039, K048-K052, K086, K087, U002, U003, U019, U031, U037, U056, U057, U070, U080, U112, U121, U140, U154, U159, U161, U209, U210, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 211, 212, 213, 214, 221, 222, 223, 251, 252, 281, 291, 331, 341, 342, 343, 521, 541, 551, 561, 612, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751, 791, 792

Constituents of Concern

Chlorinated and non chlorinated flammable solvents, petroleum by-products, miscellaneous metals

Disposition

Although it is the initial goal to decontaminate Unit #24 solvent distillation equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For columns, reboilers refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For miscellaneous equipment refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For framework refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For columns, reboilers refer to Appendix	B6A Distillation Systems for Resale, B6B Distillation Scrap, B6C Distillation Non hazardous Waste, B6D Distillation Hazardous, B7A Tanks for Resale, B7B Tank Scrap, B7C Non Hazardous Waste, B7D Hazardous
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For miscellaneous equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
For framework refer to Appendix:	B2A Framework for Resale, B2B Scrap
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For columns, reboilers refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For miscellaneous equipment refer to Appendix:	C1 Equipment and Structures
For framework refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Chemical Waste Mgmt, Inc CAT000646117 Kettleman City CA 932100000	Clean Harbors Environmental Services US EPA ID: ARD069748192 El Dorado, AR 71730	Ecology Control Industries CAD009466392 Richmond, CA 948010000
PHIBRO Tech, Inc CAD008488025 Santa Fe Springs, CA 906702515	Veolia Environmental Services US EPA ID: CAT080014079 Richmond, CA 94801	

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
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Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #25 High Temperature Unit Closure Activity Narrative

Equipment Description

The three principal components of the High Temperature Unit are Tank HTU and two receiver tanks (HTU-1 and HTU-2). Tank HTU has an elliptical top and bottom and shall be equipped with a temperature gauge, two level controls, a pressure gauge, and drains from the bottom. Both tanks HTU-1 and HTU-2 have elliptical tops and bottoms and are installed vertically on legs. These tanks are equipped with sight glass and level probes and drain from the bottom.

Location/Area

The High Temperature Unit (HTU) is located in Tank Farm HTU which is directly east of Tank Farm A and Tank Farm B. Refer to Figures B-03 and B-04.

Component Capacity/Dimension

Tank Farm HTU has a rectangular shaped secondary containment that is about 12 feet wide by 25 feet long. The required secondary containment is 1840 gallons. There is currently insufficient secondary containment for the volume of the largest tank plus the required rainfall amount. Tanks are all on legs, so there is no allowance made for tank displacement. The following list provides fluid capacity and physical dimensions for all major equipment pieces.

High Temperature Unit #25 Major Equipment List

ID Number	Capacity (gallons)	Diameter	Height	Construction Material
Tank HTU	1,127	5'	11' 10"	Carbon Steel
Tank HTU-1	474	3' 6"	9'	Carbon Steel
Tank HTU-2	330	3' 6"	9'	Carbon Steel

Additional equipment consists of condenser, pumps and piping, boiler for heat source.

Materials of Construction

Materials used in the construction of **major equipment** are carbon steel and mild steel alloys.

Waste Managed

5. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, Xylene
6. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
7. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
8. Wastewater

Common Name

Solvent and petroleum based by-products suitable for fuel blending

US EPA / California Waste Codes

RCRA: D001, D004, D008, D018, D019, D021-D029, D032-D036, D038-D040, D043, F001-F005, F037-F039, K048-K052, K086, K087, U002, U003, U019, U031, U037, U056, U057, U070, U080, U112, U121, U140, U154, U159, U161, U209, U210, U213, U220, U226, U228, U239

CWC: 121-123, 131-135, 141, 211, 212, 213, 214, 221, 222, 223, 251, 252, 281, 291, 331, 341, 342, 343, 521, 541, 551, 561, 612, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751, 791, 792

Constituents of Concern

Chlorinated and non chlorinated flammable solvents, petroleum by-products, miscellaneous metals.

Disposition

Although it is the initial goal to decontaminate the Unit #24 High Temperature equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For columns, reboilers refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For miscellaneous equipment refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For framework refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste

For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste
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Decontamination Performance Methods:

For columns, reboilers refer to Appendix	B6A Distillation Systems for Resale, B6B Distillation Scrap, B6C Distillation Non hazardous Waste, B6D Distillation Hazardous, B7A Tanks for Resale, B7B Tank Scrap, B7C Non Hazardous Waste, B7D Hazardous
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For miscellaneous equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
For framework refer to Appendix:	B2A Framework for Resale, B2B Scrap
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For columns, reboilers refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For miscellaneous equipment refer to Appendix:	C1 Equipment and Structures
For framework refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
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Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640
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If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #26 Thin Film Evaporator Closure Activity Narrative

Equipment Description

Thin Film Evaporator Unit includes TFE-1, TFE-2, and TFE-3 and all are similarly constructed. The vessels have carbon steel shells with stainless steel jackets. The vessels are cylindrical with a diameter of 28 inches and a length of 12.75 feet. They are installed vertically. The TFE#1, TFE #2, and TFE#3 are equipped with a motor to power the rotating internal blades. The outlet for still bottoms is located at the bottom. TFE #4 was planned but never constructed.

Location/Area

Thin Film Evaporation Unit is located in the Production Area and the associated receiver tanks are located in Tank Farm A and Tank Farm B. Refer to Figures B-03 and B-04.

Component Capacity/Dimension

The Production Area has an irregularly shaped secondary containment that is about 40 feet wide by 190 feet long. Containment is provided by the use of ramps and small curbs. The available secondary containment for tank storage is 9,485 gallons.

Thin Film Evaporation Unit #26 Major Equipment List

Unit Name	Treatment Capacity (gal./min.)	Major Components	Capacity in gallons	Location	Ancillary Equipment
TFE 1	8.0	R93 Reactor	4,743	Tank Farm B	Condenser
		TF 1 Thin Film	150	Production Area	
		Tank 4	4,500	Tank Farm A	
TFE 2	10.0	R94 Reactor	4,743	Tank Farm B	Condenser (3), Chilled condenser
		TF 2 Thin Film	190	Production Area	
		Tank 8	4,500	Tank Farm A	
TFE 3	10.0	R95 Reactor	4,743	Tank Farm B	Condenser (3), Chilled condenser
		TF 3 Thin Film	190	Production Area	
		Tank 12	4,500	Tank Farm A	
TFE 4 (planned)	15.5	R91 Reactor	4,743	Tank Farm B	Condenser (3)
		R92 Reactor	4,743	Tank Farm B	
		TF 4 Thin Film (planned)	150	Production Area	
		Tank 1	4,200	Tank Farm A	
TOTAL	43.5				

Materials of Construction

Materials used in the construction of **thin film evaporators** are stainless steel, carbon steel, mild steel alloys, and galvanized sheet metal skirting.

Materials used in the construction of **condensers** are carbon steel and mild steel alloys.

Materials used in the construction of **piping** are stainless steel, carbon steel, and mild steel alloys.

Waste Managed

1. Non chlorinated solvents such as acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene
2. Chlorinated solvents such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Wastewater

Common Name

Solvent and petroleum based by-products suitable for fuel blending

US EPA / California Waste Codes

RCRA: D001, D004-D011, D018, D019 D021-D029, D032-D036, D039, D040, D043, F001-F005, F037- F039, K048-K052, K086, K087, U002, U003, U019, U031, U037, U056, U057, U070, U080, U112, U121, U140, U154, U159, U161, U209, U210, U213, U220, U226, U228, U239

CWC: 211, 212, 213, 214, 121-123, 131-135, 141, 211, 212, 214, 221, 222, 223, 251, 252, 281, 291, 331, 341, 342, 343, 521, 541, 551, 561, 612, 721- 728, 741, 791, 792

Constituents of Concern

Chlorinated and non chlorinated flammable solvents, petroleum by-products, miscellaneous metals

Disposition

Although it is the initial goal to decontaminate the Unit #26 Thin Film Evaporator equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For columns, reboilers refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For miscellaneous equipment refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For framework refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous

	Waste
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Decontamination Performance Methods:

For columns, reboilers refer to Appendix	B6A Distillation Systems for Resale, B6B Distillation Scrap, B6C Distillation Non hazardous Waste, B6D Distillation Hazardous, B7A Tanks for Resale, B7B Tank Scrap, B7C Non Hazardous Waste, B7D Hazardous
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For miscellaneous equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
For framework refer to Appendix:	B2A Framework for Resale, B2B Scrap
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For columns, reboilers refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For miscellaneous equipment refer to Appendix:	C1 Equipment and Structures
For framework refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services	Veolia Environmental Services	Veolia Environmental Services

EPA ID No.: OHD093945293 West Carrollton, OH 45449	EPA ID No.: CAD008302903 Azusa, CA 91702	EPA ID No.: COD980591184 Henderson, CO 80640
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If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #27 Liquid Extraction Unit Closure Activity Narrative

Equipment Description

Liquid Extraction Unit (WWT, Caustic Column, Caustic Re-boiler, SSK)

Location/Area

The Liquid-Liquid Extraction Unit is located in the Production Area Unit. Refer to Figures B-03 and B-04.

Component Capacity/Dimension

The Water Wash Tank (WWT) is a cylindrical tank with an elliptical top and a cone bottom mounted vertically on a skirt. The tank is filled and emptied from the bottom. The Stainless Steel Kettle (SSK) is cylindrical tank with a dome top and bottom. The tank is installed vertically on legs to a height of 12 feet 4 inches tall. The Caustic Column (CC) is installed vertically on a skirt and measures 57.67 feet tall. The Caustic Reboiler (RCC) is fabricated of monel which is an alloy containing nickel, copper, iron and other trace elements with nickel being the primary component (at least 63-70%). Monel is susceptible to corrosion. The tank has a dish top and bottom and installed vertically on legs stands 11 feet 4 inches high. The Production Area has an irregularly shaped secondary containment that is about 40 feet wide by 190 feet long. Containment is provided by the use of ramps and small curbs. The available secondary containment for tank storage is 9,485 gallons. The following list provides fluid capacity and physical dimensions for all major equipment pieces.

The Liquid-Liquid Extraction Unit #27

ID Number	Capacity (gallons)	Diameter	Height	Construction Material
Caustic Reboiler (RCC)	2,160	6' 6"	11' 4"	Monel
Stainless Steel Kettle (SSK)	1,618	6'	12' 4"	Stainless Steel
Water Wash Tank (WWT)	3,305	9'	15' 11"	Carbon Steel
Caustic Column				Stainless Steel

Materials of Construction

Materials used in the construction of the **reboiler** are monel, and carbon steel
Materials used in the construction of the **kettle** are stainless steel and carbon steel.
Materials used in the construction of the **tank** are carbon steel and carbon steel alloys.

Waste Managed

1. Non chlorinated solvents and debris including acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene

2. Chlorinated solvents and debris such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane
3. Ethylene Glycol, Propylene Glycol, Tri-Ethylene Glycol
4. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
5. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
6. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
7. Wastewater
8. Miscellaneous metal bearing waste

Common Name

Solvent and petroleum based by-products suitable for fuel blending

US EPA / California Waste Codes

RCRA: D001, D004-D011, D018, D019, D021-D030, D032-D036, D039-D040, F001-F024, F037, F038, F039, K048-K052, K086, K087, K156-K159, K161, K169-K172, P037, P038, P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U019, U031, U037, U052, U055, U070, U080, U108, U110, U112, U121, U140, U154, U159, U161, U171, U209-U211, U213, U220, U226, U228, U239, U271, U278, U279, U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409-U411

CWC: 121-123, 131-135, 141, 151, 161, 162, 171, 172, 181, 211-214, 221-223, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 481, 491, 511-513, 521, 541, 551, 561, 571, 581, 591, 611-612, 721-728, 741, 751, 791, 792, 801

Constituents of Concern

Chlorinated and non chlorinated flammable solvents, petroleum by-products, miscellaneous metal bearing wastes

Disposition

Although it is the initial goal to decontaminate the Unit #27 Liquid Extraction equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For columns, reboilers refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For miscellaneous equipment refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For framework refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For columns, reboilers refer to Appendix	B6A Distillation Systems for Resale, B6B Distillation Scrap, B6C Distillation Non hazardous Waste, B6D Distillation Hazardous, B7A Tanks for Resale, B7B Tank Scrap, B7C Non Hazardous Waste, B7D Hazardous
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For miscellaneous equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
For framework refer to Appendix:	B2A Framework for Resale, B2B Scrap
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For columns, reboilers refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For miscellaneous equipment refer to Appendix:	C1 Equipment and Structures
For framework refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293	Veolia Environmental Services EPA ID No.: CAD008302903	Veolia Environmental Services EPA ID No.: COD980591184

West Carrollton, OH 45449	Azusa, CA 91702	Henderson, CO 80640
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Unit #28 Liquefaction Unit Closure Activity Narrative

Equipment Description

The Liquefaction Unit occupies two levels in the drum and debris building. Two sub-chambers make up the main chamber of the unit which is located on the second floor. Opened drums are fed via a feed belt into either of the two sub-chambers. One of the sub-chambers includes a motorized auger and the second sub-chamber includes a motorized brush. The main chamber contains a hydraulic ram press and shredder, a sump and filter screens.

Tank PT-1 is a cylindrical tank and is equipped with a Cowel's mixer and a sight glass to indicate the liquid level in the tank. The tank has a dome top and a dome bottom and is installed vertically on legs.

Location/Area

The Liquefaction Unit is located in the drum and debris processing building east of the sampling building. Refer to Figures B-03 and B-05a.

Component Capacity/Dimension

The drum and debris building has a rectangular shaped secondary containment that is about 37 feet wide by 54 feet long. The available secondary containment for tank storage is 7,500 gallons. The available secondary containment is greater than the volume of the largest tank.

Tank PT-1 is 13'10"H x 4'6"W. The maximum capacity for total storage tank was 1,160 gallons.

Materials of Construction

Liquefaction and shredding equipment is made of stainless steel, carbon steel and other ferrous metal components and aluminum.

Tank PT-1 is constructed of carbon steel

The structure consists of concrete floors and berms with a steel framework and sheet metal walls and roof.

Waste Managed

Chlorinated and non chlorinated solvents and debris including methylene chloride, perchloroethylene, trichloroethylene, trichloroethane, acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene and xylene

Common Name

Spent halogenated and non-halogenated solvents and related debris

US EPA / California Waste Codes

Non-halogenated solvents

RCRA: D001, D004-D011, D018, D023-D026, D035, D036, D038, F003-F005, K048-K052, U002, U003, U019, U031, U056, U057, U112, U140, U154, U159, U161, U213, U220, U239

CWC: 211, 212, 214, 251, 252, 331, 342, 343, 551, 612, 721, 722, 723, 724, 725, 726, 727, 728

Halogenated solvents

RCRA: D001, D019, D021, D022, D027, D028, D032, D033, D034, D039, D040, D043, F001, F002, K086, U037, U070, U080, U121, U209, U210, U226, U228

CWC: 211, 212, 213, 214, 251, 252, 331, 341, 342, 343, 551, 612, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751

Constituents of Concern

Acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, xylene, methylene chloride, perchloroethylene, trichloroethylene, trichloroethane

Disposition

Although it is the initial goal to decontaminate the Unit #28 Liquefaction equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For liquefaction, tank, and equipment refer to Appendix:	A1, Tanks for Resale, A1 Equipment Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Equipment Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For miscellaneous equipment refer to Appendix:	A1 Equipment Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For framework and structural refer to Appendix:	A1 Equipment Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For liquefaction and miscellaneous equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
For tanks refer to Appendix:	B7A, Tanks for Resale, B7B Scrap, B7C Non hazardous Waste, B7D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For structural refer to Appendix:	B5A Structural for Resale, B5B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
For framework refer to Appendix:	B2A Framework for Resale, B2B Scrap, 4C Non hazardous Waste, B4D Hazardous Waste
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For liquefaction and miscellaneous equipment refer to Appendix:	C1 and Structures
For piping refer to Appendix:	C1 and Structures
For structural refer to Appendix:	C1 and Structures
For framework refer to Appendix:	C1 and Structures
For concrete pad refer to Appendix:	C1 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #29 Lab Pack Consolidation Unit Closure Activity Narrative

Equipment Description

There is no equipment or major mechanical components for this unit. This area is enclosed behind clear vinyl curtains and is vented to a water scrubber located just outside and west of West Storage Building #2.

Location/Area

The Lab Pack Consolidation Unit is located in west storage building #2 in the northwest corner of the field services warehouse. Refer to Figures B-03 and B-05b.

Component Capacity and Dimension

The containment capacity around the Lab Pack Consolidation Unit measures 125 feet in length by 65 feet in width. The minimum berm height is eight (8) inches.

Materials of Construction

The building consists of a concrete slab constructed of nominal 6" concrete with #6 rebar spaced 12" on center each way. The containment slab is surrounded on three sides by a sheet metal siding.

Waste Managed

Various sized containers up to 350 gallon bulk totes (including lab packs) containing various flammables, corrosives, heavy metals, reactives, halogenated and non-halogenated solvents pharmaceuticals, and unused or off spec chemical formulations.

Common Name

Containerized, bulk and lab pack waste

US EPA / California Waste Codes

RCRA: D001, D002, D004, D021-D030, D032-D40, D043, F001-F005, P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U002-U004, U019, U031, U037, U055- U057, U070,U080, U108, U110, U112, U121, U122, U140, U159, U161, U171, U209-U211, U213, U220, U226, U228, U239, U271, U278, U279, U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409-U411

CWC: 121-123, 131-135, 141, 151, 161, 162, 171, 172, 181, 211-214, 221-223, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 481, 491, 511-513, 541, 551, 561, 611, 612, 711, 721-728, 741, 751, 791, 792

Constituents of Concern

Flammables, corrosives, heavy metals, reactives, halogenated and non-halogenated solvents pharmaceuticals, and unused or off spec chemical formulations.

Disposition

Although it is the initial goal to decontaminate the Unit #29 structural material for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For structural materials refer to Appendix:	A1 Resale, A2 Scrap, A3 Non Hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non Hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For structural and related equipment refer to Appendix:	B5A Process Structures for Resale, B5B Scrap, B4A Equipment Resale, B4B Equipment Scrap, B4C Non Hazardous Waste, B4D Hazardous Waste
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For structural materials and equipment refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC	Clean Harbors Environmental	Pollution Control Industries
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EPA ID No.: ARD069748192 El Dorado, AR 71730	Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #30 Consolidation Booth Closure Activity Description

HWMU #30, Consolidation Booth was planned but never constructed.

Unit #31 Debris Shredder Unit Closure Activity Narrative

Equipment Description

The Debris Shredder System includes a three stage shredder from SSI Shredding Systems and utilizes two 75-hp motors and one 50-hp motor. The complete assembly includes the inlet hopper/feed system, screw conveyors, a discharge chute, an explosion-proof door and video cameras.

Location/Area

The Debris Shredder is located in the Drum and Debris Processing Building east of the Sampling Area. Refer to Figures B-03 and B-05a.

Component Capacity/Dimension

The dumping bin is 36 inches x 36 inches x 40 inches in capacity and elevates to a height of 15 feet 4½ inches. The secondary shredder has an opening of 30 inches x 20 inches with a cutter thickness of ¾ inch. The tertiary shredder opening is 30 inches x 20 inches with a cutter thickness of ½ inch.

This unit may handle solids that may include incidental amounts of liquids. See Unit #28 for a description of the secondary containment for the Drum and Debris Building.

Materials of Construction

All cutting teeth are made of high-yield stainless steel. Remaining constructed materials consist of carbon steel, steel alloy and aluminum.

Waste Managed

Solids such as contaminated rags, wipes, wood plastic containers, and other debris having medium BTU value

Common Name

Solid debris

US EPA / California Waste Codes

RCRA: D001, D004-D011, D018, D019, D021-D028, D032-D036, D038-D039, D043, F001-F005, F037, F038, F039, K048,-F052, U019, U070, U108, U122

CWC: 141, 181, 211, 212, 213, 214, 223, 232, 241, 251, 271, 272, 281, 291, 311, 331, 351, 352, 491, 511, 512, 513, 541, 612, 613, 751

Constituents of Concern

Hazardous solid debris

Disposition

Although it is the initial goal to decontaminate the Unit #10 Debris Shredder equipment for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For shredding and miscellaneous equipment refer to Appendix:	A1 Equipment Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For piping refer to Appendix:	A1 Equipment Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For framework and structural refer to Appendix:	A1 Equipment Resale, A2 Scrap, A3 Non hazardous Waste, A4 Hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For shredding and miscellaneous equipment refer to Appendix:	B4A Equipment for Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
For piping refer to Appendix:	B3A Piping for Resale, B3B Scrap, B3C Non hazardous Waste, B3D Hazardous Waste
For structural refer to Appendix:	B5A Structural for Resale, B5B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
For framework refer to Appendix:	B2A Framework for Resale, B2B Scrap, 4C Non hazardous Waste, B4D Hazardous Waste
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For shredding and miscellaneous equipment refer to Appendix:	C1 Equipment and Structures
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For piping refer to Appendix:	C1 Equipment and Structures
For structural refer to Appendix:	C1 Equipment and Structures
For framework refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Structures

Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312

Unit #32 Portable Aerosol Depressurization Unit Closure Activity Description

HWMU #32, Portable Aerosol Depressurization Unit was planned but never constructed.

Unit #33 Drum Crushing Unit Closure Activity Description

Location/Area

Both drum crusher assemblies were located in the North Storage Building which is located next to the South Storage Building. Refer to Figures B-03 and B-05a.

Capacity/Dimension

The North Storage Building has a maximum storage capacity of 45,560 gallons to include one roll-off bin which has a 40 cubic yard capacity. The storage unit is about 99 feet in length and 49 feet wide. The containment slab is surrounded on three sides by metal sheeting walls atop one foot high concrete dike or berm. The east end, the fourth side, is open and ramped to the height of the dike. The west end wall is partially open on the top for ventilation. The minimum berm height is seven (7) inches. The building has a metal roof.

Materials of Construction

The floor area consists of concrete slab constructed of nominal 6" concrete with #6 rebar spaced 12" on center each way. The containment slab is surrounded on three sides by metal sheeting walls atop one foot high concrete dike or berm. The roof is made of metal framework and sheet metal skirting.

Waste Managed

The drum crushing units did not manage hazardous waste.

Unit #34 Truck Wash Unit Closure Activity Narrative

Equipment Description

The Truck Wash Unit consists of a storage tank (TW-1) and a truck wash system. The truck wash system consists of a four-compartment truck wash skid and a rack that holds a sprayer.

Location/Area

The Truck Wash Unit is located south of Tank Farm K. Refer to Figures B -03 and B-06.

Component Capacity/Dimension

The Truck Wash Unit secondary containment area measures 73 feet by 27 feet. The containment capacity is sufficient for the tank plus the anticipated rainfall and has an allowance for the displacement of tank footprints.

Unit #34 Major Equipment List

UNIT NAME	TREATMENT CAPACITY	MAJOR COMPONENTS	CAPACITY (gallons)	ANCILLARY EQUIPMENT
Truck Wash Unit ⁽¹⁾	15,000 gal./day	Truck Wash Rack ⁽¹⁾	n.a.	Spray nozzle, centrifugal pump, steam coil heating unit, piping, in-basket filter, and air blower
		Tank Wash Skid ⁽¹⁾ (liquid holding tanks)	2,000	
		Tank TW-1 ⁽¹⁾	1,700	

(1) Indicates that the unit is existing but not previously permitted for hazardous waste treatment

Tank Number	Permit Capacity Gallon	Diameter (feet, inches)	Height ⁽¹⁾ (feet, inches)	Minimum Shell Thickness (inches)	Configuration Vertical	Construction Material
Tank TW-1	1700	7 feet 2 inches	6 feet 8 inches	.50	Flat bottom	Polyethylene

(1) Height is defined as the total installed height (not including the height of any dome or cone top).

Materials of Construction

The surface of the Truck Wash Unit containment area is a reinforced concrete. The slab is at least 8 inches thick with ½ inch reinforcing steel spaced 18 inches on center. The height of the berm is 4 inches and is constructed with 4"x2"x1/4" steel tubing bolted to the concrete with epoxy bolts.

Waste Managed

9. Non chlorinated solvents and debris including acetone, lacquer thinner, methyl ethyl ketone, n-methyl pyrrolidone, mineral spirits, N-butyl acetate tetrahydrofuran, toluene, Xylene
10. Chlorinated solvents and debris such as methylene chloride, perchloroethylene, trichloroethylene, trichloroethane

11. Ethylene Glycol, Propylene Glycol, Tri-Ethylene Glycol
12. Waste antifreeze, such as ethylene glycol, propylene glycol, triethylene glycol
13. Wastes with high British Thermal Unit (BTU) value such as paint, thinner, hydrocarbon solvents, machine oils, alcohols, gasoline, diesel, and inks
14. Semi-solid and solid materials with high BTU value such as paint sludge, waxes, greases, photoresist, spill cleanup residuals, residues where the absorbent used had BTU > 5,000, any semi-solid or solid organic bearing material with BTU value > 5,000
15. Corrosive acids and alkaline materials that sometimes contain RCRA heavy metals such as spent acids, cleaning compounds, caustic solutions and miscellaneous metal bearing waste
16. Wastewater
17. Miscellaneous metal bearing waste

Common Name

Contaminated tanker truck waste

US EPA / California Waste Codes

RCRA: D001, D004-D011, D018, D019, D021-D030, D032-D036, D039-D040, F001-F024, F037, F038, F039, K048-K052, K086, K087, K156-K159, K161, K169-K172, P037, P038, P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U019, U031, U037, U052, U055, U070, U080, U108, U110, U112, U121, U140, U154, U159, U161, U171, U209-U211, U213, U220, U226, U228, U239, U271, U278, U279, U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409-U411

CWC: 121-123, 131-135, 141, 151, 161, 162, 171, 172, 181, 211-214, 221-223, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 481, 491, 511-513, 521, 541, 551, 561, 571, 581, 591, 611-612, 721-728, 741, 751, 791, 792, 801

Constituents of Concern

Flammable solvent residues, corrosive residues, miscellaneous metal bearing wastes

Disposition

Although it is the initial goal to decontaminate the Unit #34 Structural Material for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For framework refer to Appendix:	A1 Resale of General Equipment, A2 Scrap, A3 Non Hazardous Waste, A4
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	Hazardous Waste
For concrete pad refer to Appendix:	A3 Non Hazardous Waste, A4 Hazardous Waste

Decontamination Performance Methods:

For framework refer to Appendix:	B2A Framework for Resale, B2B Scrap, B4C Non Hazardous Waste, B4D Hazardous Waste
For concrete pad refer to Appendix:	B1B Leave in Place, B1C Concrete Removed as Hazardous Waste, B1D Corrosivity

Decontamination Performance Confirmation:

For framework refer to Appendix	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

Final Disposition

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

Unit #35 Enhanced Truck Parking Area Closure Activity Narrative

This unit was planned but was never constructed nor was it authorized under the original permit.

Unit #36 Truck Loading/Unloading Areas Closure Activity Narrative

Equipment Description

Physical concrete areas designated for unloading and loading transport vehicles bearing hazardous waste.

Location/Area

There are Seventeen (17) Truck Loading/Unloading Areas located throughout the Facility. Refer to Figure B-03.

Location	Function	Nearest Permitted Unit
East of Sampling Area	Primary Unloading	Sampling Area, South Storage Building
East of South Storage Building	Primary Unloading	Sampling Area, South Storage Building
Truck bay between Tank Farm CLR and Tank Farm A	Primary Unloading, Drum Pumping	Tank Farm A, Tank Farm B, Tank Farm CLR, Production Area
West of Tank Farm I	Primary Unloading	Tank Farm I Tank Farm J
East of Tank Farm Q	Primary Unloading	Tank Farm Q
West of Sampling Area	Other Unloading or Loading	Sampling Area
Truck bay between Tank Farm MNO and Tank Farm CLR	Other Unloading or Loading Drum Pumping	Tank Farm CLR Tank Farm MNO
West of Tank Farm H and Tank Farm G	Other Unloading or Loading	Tank Farm H Tank Farm G
East of West Storage Building #2	Other Unloading or Loading	West Storage Building #2
South of proposed Tank Farm E	Other Unloading or Loading	Tank Farm E
East of Tank Farm E	Other Unloading or Loading	Tank Farm E Liquefaction and Debris Shredder
South of proposed Tank Farm S	Other Unloading or Loading	Tank Farm S
South of West Storage Building #1	Other Unloading or Loading	West Storage Building #1
East of West Storage Building #1	Other Unloading or Loading	West Storage Building #1
South of proposed Tank Farm T	Other Unloading or Loading	Tank Farm T
North of Tank Farm K	Sampling Other Unloading or Loading	Tank Farm K
East of Tank Farm B and Tank Farm D	Sampling Primary Loading Primary Unloading	Tank Farm B Tank Farm D Tank Farm HTU
North of Tank Farm MNO	Sampling	Tank Farm MNO
Truck Wash Unit	Sampling	Tank Farm K

Component Capacity/Dimension

No specific dimensions or capacity with minimum area to accommodate safe unloading and loading of tanker trucks.

Materials of Construction

Concrete

Waste Managed

EPA Regulated Waste

D001 Ignitable
D002 Corrosive
D004 Arsenic
D005 Barium
D006 Cadmium
D007 Chromium
D008 Lead
D009 Mercury
D010 Selenium
D011 Silver
D018 Benzene
D019 Carbon Tetrachloride
D021 Chlorobenzene
D022 Chloroform
D023 o- Cresol
D024 m- Cresol
D025 p- Cresol
D026 Cresol
D027 1, 4- Dichlorobenzene
D028 1, 2- Dichloroethane
D029 1, 1- Dichlorethylene
D030 2, 4- Dinitrotoluene
D032 Hexachlorbenzene
D033 Hexachlorobutadiene
D034 Hexachloroethane
D035 Methyl Ethyl Ketone
D036 Nitrobenzene
D038 Pyridine
D039 Tetrachloroethylene
D040 Trichloroethylene
D043 Vinyl Chloride
F001 halogenated solvents used in degreasing
F002 spent halogenated solvents
F003 spent non-halogenated solvents
F004 spent non-halogenated solvents
F005 spent non-halogenated solvents FI
F006 wastewater treatment sludge from electroplating
F024 Process wastes from the production of certain chlorinated aliphatic hydrocarbons
F037 Petroleum refinery primary oil/water/solids separation sludge
F038 oil/water/solids separation sludge
F039 leachate
K048 dissolved air flotation (DAF) float from the petroleum refining industry
K049 slop oil emulsion solids from the petroleum refining industry
K050 heat exchanger bundle cleaning sludge from the petroleum refining industry
K051 API separator sludge from the petroleum refining industry
K052 tank bottoms (lead) from the petroleum refining industry
K086 washes and sludge from cleaning tubs and equipment used in the formulation of ink;

K087 decanter tank tar sludge from coking operations
 K156 Organic hazardous waste from the production of carbamates and carbamoyl oximes
 K157 Hazardous wastewaters from the production of carbamates and carbamoyl oximes
 K158 Bag house dusts/ filter/separation solids from production of carbamates/carbamoyl oximes
 K159 Organics from the treatment of thiocarbamate hazardous wastes
 K161 Purification solids/bag house dust/floor sweeps from production of DCBA acids and salts
 K169 Crude oil storage tank sediment from petroleum refining operations
 K170 Clarified slurry oil storage tank sediment from petroleum refining operations
 K171 Spent hydrotreating catalyst petroleum refining operations/guard beds to desulfurize feeds
 K172 Spent hydrorefining catalyst petroleum refining operations/guard beds to desulfurize feeds
 P022 Carbon disulfide
 P067 Aziridine, 2-methyl-
 P127 Carbofuran
 P128 Phenol, 4-(dimethylamino)-3,5-dimethyl-,methylcarbamate (ester)
 P185 Tirpate
 P188 Physostigmine salicylate
 P189 Carbosulfan
 P190 Metolcarb
 P191 Dimetilan
 P192 Isolan
 P194 Oxamyl
 P196 Manganese dimethyldithiocarbamate
 P197 Formparanate
 P198 Formetanate hydrochloride
 P199 Methiocarb
 P201 Promecarb
 P202 Phenol, 3-(1-methylethyl)-, methylcarbamate
 P203 Aldicarb sulfone
 P204 Physostigmine CAS#: 54-47-6
 P205 Ziram
 U002 Acetone
 U003 Acetonitrile
 U004 Acetophenone
 U019 Benzene
 U031 n-Butyl Alcohol
 U037 Benzene, chloro-
 U043 Ethene, chloro-
 U055 Cumene Flammable
 U056 Cyclohexane
 U057 Cyclohexanone
 U070 Benzene, 1,2-dichloro-
 U080 Methane, dichloro-
 U108 1,4-Dioxane
 U110 Dipropylamine
 U112 Ethyl Acetate
 U121 Methane, trichlorofluoro-
 U122 Formaldehyde
 U140 Isobutyl alcohol
 U151 Mercury
 U154 Methanol
 U159 Methyl ethyl ketone
 U161 Methyl isobutyl ketone
 U171 2-Nitropropane
 U209 1,1,2,2-Tetrachloroethane
 U210 Tetrachloroethylene
 U211 Carbon tetrachloride
 U213 Furan, tetrahydro-
 U220 Toluene
 U226 Methyl chloroform
 U228 Trichloroethylene

U239 Xylene

California State Regulated Waste

121 Alkaline solution (pH <UN> 12.5) with metals
122 Alkaline solutions without metals (pH > 12.5)
123 Unspecified alkaline solutions
131 Aqueous solution (2 < pH < 12.5) containing reactive anions
132 Aqueous solutions with metals
133 Aqueous solutions with 10% or more total organic residues
134 Aqueous solutions with less than 10% total organic residues
135 Unspecified aqueous solutions
141 Off-specification, aged, or surplus inorganics
151 Asbestos-containing wastes
161 Fluid-cracking catalyst (FCC) wastes
162 Other spent catalyst
171 Metal sludge (see 121)
172 Metal dust (see 121) and machining waste
181 Other inorganic solid waste
211 Halogenated solvents
212 Oxygenated solvents
213 Hydrocarbon solvents
214 Unspecified solvent mixtures
221 Waste oil and mixed oil
222 Oil/water separation sludge
223 Unspecified oil-containing waste
231 Pesticide rinse water
232 Pesticides and other waste associated with pesticide Production
241 Tank bottom waste
251 Still bottoms with halogenated organics
252 Other still bottom waste
271 Organic monomer wastes
272 Polymeric resin wastes
281 Adhesives
291 Latex wastes
311 Pharmaceutical wastes
331 Off-specification, aged, or surplus organics
341 Organic liquids with halogens
342 Organic liquids with metals
343 Unspecified organic liquid mixture
351 Organic solids with halogens
352 Other organic solids
411 Alum and gypsum sludge
421 Lime sludge
431 Phosphate sludge
441 Sulfur sludge
451 Degreasing sludge
461 Paint sludge
471 Paper sludge/pulp
481 Tetraethyl lead sludge
491 Unspecified sludge waste
511 Empty pesticide containers 30 gallons or more
512 Other empty containers 30 gallons or more
513 Empty containers less than 30 gallons
521 Drilling mud
541 Photochemicals / photoprocessing waste
551 Laboratory waste chemicals
561 Detergent and soap
571 Fly ash, bottom ash, and retort ash
581 Gas scrubber waste

591 Baghouse waste
 611 Contaminated soils from site clean-ups
 612 Household wastes
 721 Liquids with arsenic > 500 mg/l
 722 Liquids with cadmium > 100 mg/l
 723 Liquids with chromium (VI) > 500 mg/l
 724 Liquids with lead > 500 mg/l
 725 Liquids with mercury > 20 mg/l
 726 Liquids with nickel > 134 mg/l
 727 Liquids with selenium > 100 mg/l
 728 Liquids with thallium > 130 mg/l
 741 Liquids with halogenated organic compounds > 1000 mg/l
 751 Solids or sludges with halogenated organic compounds > 1000mg/kg
 791 Liquids with pH # 2
 792 Liquids with pH # 2 with metals

Common Name

Contaminated tanker truck waste

Constituents of Concern

Flammable solvent residues, corrosive residues, miscellaneous metal bearing wastes

Disposition

Although it is the initial goal to decontaminate the Unit #36 Structural Material for resale or scrap and concrete pad suitable to leave in place as an environmental engineering control, section 5.2.2. of this plan provides four disposition options complete with related decision tree.

Decontamination Performance Standards:

For concrete surface refer to Appendix:	A3 Non Hazardous Waste, A4 Hazardous Waste
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Decontamination Performance Methods:

For concrete surface refer to Appendix:	B1B Leave in Place, B1C Concrete Removed as Hazardous Waste, B1D Corrosivity
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Decontamination Performance Confirmation:

For concrete surface refer to Appendix:	C2 Concrete Surfaces
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Final Disposition

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Advanced Environmental, Inc CAT080025711 Fontana, CA 923350000	Chemical Waste Mgmt, Inc CAT000646117 Kettleman City CA 932100000	Clean Harbors Buttonwillow, LLC CAD980675276 Buttonwillow, CA 932060000
Ecology Control Industries CAD009466392 Richmond, CA 948010000	PHIBRO Tech, Inc CAD008488025 Santa Fe Springs, CA 906702515	Veolia ES Technical Solutions, LLC CAD008302903 Azula, CA 917020000

If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670- 2515	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

#37 Non Containment Concrete Area Closure Activity Narrative

Equipment Description

The non containment pad area, excluding permitted waste management units, contains a number of storm water collection basins and drains, locations for parking bulk liquid tankers and various permitted and non permitted operational support equipment.

Location/Area

The non containment pad is located on parcel 063-121-390-7 latitude is 37 degrees: 28 minutes: 36 seconds north and the longitude is 122 degrees: 07 minutes: 43 seconds west. (Refer to Figure B-02)

Component Capacity/Dimension

The Non containment area represents the largest physical area within the Bay permitted section of the property representing approximately 6.5 acres of contiguous concrete pad. This excludes about 2 acres of concrete inside the pad occupied by the individual hazardous waste management units themselves.

Materials of Construction

The area consists of concrete slab constructed of nominal 6" concrete with #6 rebar spaced 12" on center each way.

Common Name

Non Containment Pad

US EPA / California Waste Codes

NA

Constituents of Concern

Hazardous solid residues

Disposition

It is the intent of the closure plan to decontaminate the Non Containment Pad to the degree that it can be left in place.

Decontamination Performance Standards:

For concrete pad refer to Appendix:	A3 Non hazardous Waste, A4 Hazardous Waste
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Decontamination Performance Methods:

For concrete pad refer to Appendix:	B1B Leave in Place, B1C Concrete Removed as Hazardous Waste
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Decontamination Performance Confirmation:

For concrete pad refer to Appendix:	C2 Concrete Surfaces
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Final Disposition

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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If for **Hazardous Waste** disposal the following prospective facilities are listed below

Chemical Waste Mgmt, Inc EPA ID No.: CAT000646117 Kettleman City CA 93239	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312	Phibro-Tech, Inc. EPA ID No.: CAD008488025 Santa Fe Springs, CA 90670-2515
Clean Harbors Buttonwillow, LLC EPA ID No.: CAD980675276 Buttonwillow, CA 93206		

#38 Maintenance Shop Closure Activity Narrative

Equipment Description

The Maintenance Shop consists of a single two storey structure with offices and shop bays for the repair of trucks, trailers, and facility equipment.

Location/Area

The Maintenance is located at the southwest corner of the permitted portion of the facility. (Refer to Figure B-2)

Component Capacity/Dimension

The general floor space of the shop including offices is about 13,000 square feet

Materials of Construction

The Maintenance Shop consists of a single metal framed structure with built in offices. The floor is a minimum of 6 inch reinforced concrete.

Non Hazardous Equipment Managed

Description	Location
plotter	Maintenance
55 ton press	Maintenance
Jet drill press jdp-125vs-3	Maintenance
Stak Pak -plasma machine	Maintenance
Miller 250 syncrowave welder	Maintenance
Miller 400ss Gold Star welder	Maintenance
Air products DA250 welder	Maintenance
Miller Dialarc HF-P welder	Maintenance
Dialarc 250 welder	Maintenance
Dry Rod welding rod oven	Maintenance
2hp bench grinder	Maintenance
Rigid 1224 threader	Maintenance
Rigid 1822-1 threader	Maintenance
Skat Blast sand blaster cabinet	Maintenance
Ellis 3000 band saw	Maintenance
10" bench grinder	Maintenance
Lincoln V300 welder	Maintenance
Paint spayer	Maintenance
Maxstar 150 welder	Maintenance
Miller 300xmt welder	Maintenance
Lapmaster 12 lapping machine	Maintenance
Victor track cutter	Maintenance
Truck maintenance shop hoists etc.	Maintenance
Sullair Compressor, 30 hp	Maintenance
Dowtherme Heater	Maintenance

Common Name

Maintenance Shop

US EPA / California Waste Codes

NA

Constituents of Concern

NA

Disposition

It is the intent of the closure plan to demolish the maintenance shop structure with all equipment as resale or scrap.

#39 Administration Buildings Closure Activity Narrative

Equipment Description

The administration buildings consist of 2 fixed structures and 3 modular trailer units.

Location/Area

The administration buildings are located in close proximity along the southeast entrance of the facility. The modular trailers are located just inside the inner fenced area on the southeast corner of the facility next to HWMU #18.

Component Capacity/Dimension

Each building is approximately 11,000 square feet.

The three modular office trailers are 12 feet by 40 feet each.

Materials of Construction

The fixed administration buildings are both two floor wood framed structures containing reception areas, offices and meeting rooms. The modular trailer offices are constructed of aluminum framing and wood.

Waste Managed

No waste was managed at any of these locations

Common Name

NA

US EPA / California Waste Codes

NA

Constituents of Concern

NA

Disposition

It is the intent of the closure plan to demolish the fixed structures and demolish or sale the modular trailer offices. Please refer to material disposition decision tree flowchart located in Appendix D.

Decontamination Performance Standards:

For structural refer to Appendix:	NA
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Decontamination Performance Methods:

For structural refer to Appendix:	B5D Non Process Offices
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Decontamination Performance Confirmation:

For structural refer to Appendix:	C1 Equipment and Structures
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Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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#40 Laboratory Building and Related Equipment Closure Activity Narrative

Equipment Description

The Laboratory Building consist of a two story fixed structure

Location/Area

The Laboratory Building is located along the southeast entrance of the facility between the two office administration buildings

Component Capacity/Dimension

The Laboratory Building is approximately 11,000 square feet.

Materials of Construction

The Laboratory Building is a framed structures containing chemical testing labs, offices and meeting rooms.

Waste Managed

Small waste samples were received at the lab and managed under vented work benches.

Equipment Managed

The equipment listed in the following table are equipment specific to environmental testing.

Description	Location
GAS CHROMATOGRAPH w / ELCD and PID detector	Lab
SAMPLE CONCENTRATOR AND LIQ AUTO SAMPLER	Lab
GAS CHROMATOGRAPH -- ECD, w / controller/sampler	Lab
GAS CHROMATOGRAPH -- ECD, w / controller/sampler	Lab
GAS CHROMATOGRAPH -- TCD, w / controller/sampler	Lab
GAS CHROMATOGRAPH -- TCD, w / controller/sampler	Lab
GAS CHROMATOGRAPH -- TCD, w / controller/sampler	Lab
GAS CHROMATOGRAPH -- TCD, w / controller/sampler	Lab
GAS CHROMATOGRAPH -- FID, w / co ntroller/sampler	Lab
KARL FISCHER TITRATOR	Lab
CALORIMETER	Lab
BARNSTEAD D.I. WATER UNIT	Lab
CYANIDE DISTILLATION UNIT	Lab
MERCURY ANALYZER	Lab
GAS CHROMATOGRAPH / MASS SPECTROMETER	Lab
ION CHROMATOGRAPH	Lab
LAB COOLING WATER SUPPLY	Lab

Common Name

NA

US EPA / California Waste Codes

NA

Constituents of Concern

Hazards contamination on working surfaces and laboratory equipment

Disposition

It is the intent of the closure plan to demolish the Laboratory Building sell or scrap the testing equipment. Please refer to material disposition decision tree flowchart located in Appendix D.

Decontamination Performance Standards:

For structural refer to Appendix:	NA
For equipment refer to Appendix:	NA (refer to decontamination for laboratory equipment under Appendix B5C

Decontamination Performance Methods:

For structural refer to Appendix:	B5C Laboratory
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Decontamination Performance Confirmation:

For structural refer to Appendix:	C1
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Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below
Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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#41 Sewer Tanks Closure Activity Narrative

Equipment Description

The sewer water collection tanks consist of three above ground portable rectangular tanks that treat gray water using a secondary treatment process of aeration to consume microorganisms before discharging to the public sewer system.

Location/Area

The sewer water collection tanks are located on the north side of West Storage Building (Unit #5) along the northwest property line.

Component Capacity/Dimension

Each tank is 10 feet by 40 feet and 8 feet high and can hold up to 20,000 gallons.

Materials of Construction

Tanks are made of mild carbon steel with PVC piping feed and discharge lines.

Waste Managed

Domestic grey water

Common Name

Sewer tanks

US EPA / California Waste Codes

NA

Constituents of Concern

Sewer water

Disposition

It is the intent of the closure plan to decontaminate the three tanks for resale or scrap, piping as non hazardous waste and leaving concrete in place.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste
For piping refer to Appendix:	A2 Scrap, A3 Non hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Resale, B7B Scrap, B7C Non hazardous Waste
For piping refer to Appendix:	B3B Scrap, B3C Non hazardous Waste
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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#42 Storm water Collection Tanks Closure Activity Narrative

Equipment Description

There are two stormwater collection tanks used to hold stormwater from stormwater drains located throughout the non containment area prior to discharge to the stormwater system. Tank #1 is a round open tank and Tank #2 is a rectangular tank

Location/Area

The two tanks are located along the south east corner of the permitted section of the facility. Tank #1 is located on the south side of Unit #18 and Tank #2 is located within the containment pad of unit #18.

Component Capacity/Dimension

Tank #1 holds up to 500,000 gallons and Tank #2 holds up to 60,000 gallons.

Materials of Construction

Both tanks are made of mild carbon steel.

Waste Managed

Stormwater

Common Name

Stormwater holding tanks

US EPA / California Waste Codes

NA

Constituents of Concern

NA

Disposition

It is the intent of the closure plan to decontaminate both tanks for resale or scrap, piping as non hazardous waste and leaving concrete in place.

Decontamination Performance Standards:

For tanks refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste
For piping refer to Appendix:	A2 Scrap, A3 Non hazardous Waste
For concrete pad refer to Appendix:	A3 Non hazardous Waste

Decontamination Performance Methods:

For tanks refer to Appendix:	B7A Resale, B7B Scrap, B7C Non hazardous Waste
For piping refer to Appendix:	B3B Scrap, B3C Non hazardous Waste
For concrete pad refer to Appendix:	B1A Leave in Place, B1C Concrete Removed as Hazardous Waste

Decontamination Performance Confirmation:

For tanks refer to Appendix:	C1 Equipment and Structures
For piping refer to Appendix:	C1 Equipment and Structures
For concrete pad refer to Appendix:	C2 Concrete Surfaces

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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#43 Miscellaneous Non Permitted Equipment Systems Closure Activity Narrative

Equipment Description

Miscellaneous non-permitted equipment consists of;

- Process related equipment that was never installed or used
- Process related equipment having no likely contact with hazardous waste
- Portable equipment such as forklifts, manlifts, and scissor lifts
- Metal walk in storage containers (sea-land containers)
- Portable ramp equipment
- Hot water boilers
- Air compressors
- Fire suppression equipment

Location/Area

Miscellaneous equipment and specific locations are listed below

Description	Location
truck scale	Building 1
boom lift 80 foot manlift	Facility
crane - out of service	Facility
scissor lift	Facility
front loader HUF	Facility
heat exchanger	Facility
sea containers	Facility
heat exchanger	Facility
SS Tank/reactor	Facility
scrubber in field service area	Field Service
nitrogen dewer	Liquifaction
portable dock	Main Dock
drum crusher	N Storage
Portable drum crusher	N Storage
distillation column	Nitrogen Feed
stretch wrap machine	North Storage
Cat Generator	Powerhouse
Sullair Compressor, 40 hp (back-up)	Powerhouse
Sullair Compressor, 60 hp (main)	Powerhouse
vacuum pump	Powerhouse
portable scales - 2	South Storage
Boilers – 2	Unit 25 and 20
Cooling Towers	Unit 11
fire system tanks with AFFF foam - 6	Warehouse
Misc. Processing Pumps used to pump product and waste	Through Facility
Tanks 16, 17, 18, 19, 20, 21	Tank Farm G

Component Capacity/Dimension

Various

Materials of Construction

Most if not all equipment listed above are made of stainless or carbon steel with aluminum and plastic parts or components. Fire suppression equipment contain pressurized non flammable gas such as CO2 or argon.

Waste Managed

NA

Common Name

Miscellaneous equipment

US EPA / California Waste Codes

NA

Constituents of Concern

NA

Disposition

It is the intent of the closure plan to decontaminate all equipment for resale or scrap. The fire suppression equipment will be depressurized and removed by a licensed contractor

Decontamination Performance Standards:

For miscellaneous equipment refer to Appendix:	A1 Resale, A2 Scrap, A3 Non hazardous Waste
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Decontamination Performance Methods:

For miscellaneous equipment refer to Appendix:	B4A Resale, B4B Scrap, B4C Non hazardous Waste, B4D Hazardous Waste
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Decontamination Performance Confirmation:

For miscellaneous equipment refer to Appendix:	C1, Equipment and Structures
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Final Disposition

If for **Resale** the following prospective end purchasers are listed below

Clean Harbors El Dorado, LLC EPA ID No.: ARD069748192 El Dorado, AR 71730	Clean Harbors Environmental Services, Inc. EPA ID No.: NED981723513 Kimball, NE 69145	Pollution Control Industries EPA ID No.: IND000646943 East Chicago, IN 46312
Veolia Environmental Services EPA ID No.: OHD093945293 West Carrollton, OH 45449	Veolia Environmental Services EPA ID No.: CAD008302903 Azusa, CA 91702	Veolia Environmental Services EPA ID No.: COD980591184 Henderson, CO 80640

If for **Scrap** the following prospective end purchasers are listed below

Local and regional scrap dealers not yet identified.

If for **Non-Hazardous Waste** disposal the following prospective facilities are listed below

Waste Management – Altamont Landfill & Resource Recovery Facility Livermore, CA 94550	Allied Waste Industries – Ox Mountain Sanitary Landfill Half Moon Bay, CA 94019	
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5.2.4. Closure Tracking Control Sheet

The Closure Tracking Control Sheet (Attachment E) is a controlled document that will be used for tracking the initialization, continued progress, and ultimate conclusion of closure activities in association with each specific HWMU, related processing or non-processing equipment or non-regulated processing structures and buildings. During closure activities project management will use this spreadsheet to document and reflect the following historical and closure related activities:

- Management Unit
- Equipment ID
- Equipment Location on the site
- Equipment Capacity
- Classification: Permitted / Classification Order
- Permit Status: RCRA / CA
- Original Waste Managed
- Original Management Method
- Unit Closure Start Date
- Decon Performance Criteria
- Decon Method Used
- Decon Location
- Decon Confirmation Used
- Final Disposition
- Date Removed from Site
- Receiving Party

5.2.5. Equipment Tracking Card

During closure activities an Equipment Tracking Card (ETC) is a tag that will also be used to track the progress of a specific HWMU unit or related piece of equipment.

The ETC (shown at right) will be physically attached to the specific HWMU or related piece of equipment and will provide additional verification of continued closure activities. The ETC will remain on each unit throughout the closure process and will be filled out by the project manager at the successful completion of each processing step.

Once successful closure of the unit has been completed, the completed ETC will be placed in the project file along with all other required documentation (e.g. manifest, BOL, disposal permit, etc.)

Equipment Tracking Card		
Management Unit	_____	
Item	_____	
Performance Standard	_____	
Performance Method	_____	
Performance Confirmation	_____	
Date of Decon	_____	
Decon by	_____	
Date of Sampling	_____	
(Mark Sample Location(s))		
Sampled by	_____	
Decon Status	PASS	FAIL
Disposition to	_____	
Date Shipped	_____	
Shipped by	_____	

5.2.6. Sampling and Analysis

The Sampling and Analysis Plan (SAP) (Attachment F) describes the sampling and analysis procedures consistent with 22 CCR 66264.112(b)(4), 66264.114, 66270.14(b)(13) which will be used for determining the effectiveness of equipment, structural and concrete decontamination as well as the establishment of final disposition of the same.

The SAP has been developed in accordance with Test Methods for Evaluating Solid Waste, SW-846, U.S. Environmental Protection Agency, November 1986 which includes procedures and guidelines for using standard test methods, sampling locations and sampling rationales, a California-certified laboratory for analyses, proper chain-of-custody procedures, and quality control/quality assurance samples such as field blanks, trip blanks, and duplicate samples.

5.2.6.1. Sampling Criteria

The sampling criteria used for determination of final disposition (resale, scrap, non-hazardous or hazardous) for HWMU's, ancillary materials and concrete is outlined in various sections of Appendix A: Decontamination Performance Standards and Appendix C: Decontamination Performance Confirmation.

Appendix A provides the analytical criteria required to determine the final disposition of the HWMU in question.

Appendix C provides the steps that must be taken to obtain the analytical evidence required to confirm the determination of final disposition of the HWMU in question.

5.2.7. Closure Performance Standards

Performance standards have been established for this closure project to allow verification of successful unit and equipment decontamination. These performance standards support the closure goals described above and were developed based on California regulations (particularly 22 CCR 66264, Article 7, 22 CCR 66264.178, and 22 CCR 66264.197) and DTSC guidance (Permit Writer Instructions for Closure of Treatment and Storage Facilities).

5.2.8. Closure Certification Report

Bay will submit to DTSC certification that the final closure of the facility has been conducted in accordance with the specifications of the approved Closure Plan. This certification will be signed by Bay and by an independent professional engineer. The certification will be submitted to DTSC within 60 days of completion of final closure.

The certification report shall include the following:

1. Certification by an independent registered professional engineer
2. Supervisory personnel description
3. Summary of Closure Activities
4. Field Engineer Observation Reports

5. Sampling Data and Analyses (i.e., sampling locations, soil boring logs, chain of custody, analytical results, etc.)
6. Discussion of Analytical Results
7. Manifests showing disposition of waste inventory
8. Modifications and Amendments to Closure Plan (if applicable)
9. Photographs

5.2.9. Closure Implementation Schedule

This section discusses the anticipated operational schedule for the final closure of the facility.

Bay will initiate closure activities within 30 days after approval of the Closure Plan. Bay will notify DTSC in writing at least 7 days prior to any closure sampling.

As discussed above, the container storage areas, tank systems, and processing equipment will be subject to closure. As discrete areas or equipment items are decontaminated per this Closure Plan, they will be marked so that they will not be further used. For example, if West Storage Building #1 has had waste removed and has been decontaminated, this area will be marked off and so identified. Any closure-generated wastes will be placed in authorized container storage areas that have not yet been closed.

Due to the variety of operational activities associated with the closure criteria, closure is expected to take longer than 180 days. Therefore, Bay will likely request an extension of the 180-day closure time allowance.

**Table 5
Closure Schedule**

Activity	Required Time	Completion Date
Tank System Decontamination	10 weeks	Week 10
Secondary Containment Decon	3 weeks	Week 13
Container Storage Area Decon	4 weeks	Week 17
Process Systems Decontamination	8 weeks	Week 25
Ancillary Equipment Decontamination	6 weeks	Week 31
Equipment and Structure Removal	8 weeks	Week 39
Cement Sampling Analysis	4 weeks	Week 43
Development of Closure Report	6 weeks	Week 49

6. Financial Responsibility

6.1 Closure Cost Estimate

Please Refer to Attachment D

6.2 Regulatory Requirements

Bay has prepared a closure cost estimate in accordance with 22 CCR 66264.142(a). Bay will adjust the closure cost estimate annually for inflation, and/or other factors, in accordance with 22 CCR 66264.142(b). Bay will make this adjustment within sixty days prior to the anniversary date of its closure financial assurance mechanism.

Bay will revise the closure cost estimate as necessary in accordance with 22 CCR 66264.142(c), within thirty days of any modification of the Closure Plan that results in a change in the cost required to close the facility.

Bay will maintain at the facility a copy of the most current cost estimate in accordance with 22 CCR 66264.142(d). Detailed cost estimates for closing the facility at maximum waste inventory are provided in Appendix 4, Volume 2 of the Part B Permit Application.

6.3. Factors

The unit costs associated with closure of the facility are based on the following assumptions and procedures.

The unit costs for all closure activities are based on the cost of hiring a third party to close the facility. A third party is someone other than the parent or subsidiary of the owner or operator. However, it is intended that trained site personnel will be used to conduct closure activities to the greatest extent possible in order to maintain continuity of facility operation.

Unit costs were obtained, where possible, from actual operating costs and experience, and contractor estimates.

Unit transportation costs used for estimating inventory elimination costs are based on contractor estimates for transporting bulk and containerized solids and liquids to an off-site permitted treatment and/or disposal facility. Bulk liquid shipments are assumed to be by rail for wastes when practical (e.g., aqueous wastes and fuel blending wastes). Unit disposal costs for off-site landfill, incinerator, hazardous waste fuel, and other treatment options are based on Bay operating experience.

Other Assumptions

- Inventory elimination is based on actual waste in inventory at the time of approval of this closure plan. This is appropriate because the facility ceased the receipt of off-site generated hazardous waste as of mid-August, 2007.
- Treatment costs are rates presently estimated for existing waste management units.

- Supplies and equipment will be salvaged to the extent possible. However, salvage value has not been incorporated into the closure cost estimate. Bay on-site equipment (e.g., crane, lifts, and vacuum tankers) will be used where possible to close the facility. Outside contractors' equipment will be used as necessary.
- Cost for decontaminating sampling equipment between samples is considered to be negligible.

6.4 Demonstration of Financial Responsibility

Bay will demonstrate continuous compliance with 22 CCR 66264.143 by providing documentation of financial assurance in at least the amount of the current cost estimate. A copy of the current financial assurance mechanism is provided in the Appendix to Section K of the Permit Application. The owner/operator, chief financial officer, or their designee pursuant to 22 CCR 66264.143 must approve changes in the financial assurance mechanism.

The financial assurance mechanism will be adjusted prior to the operation of any planned units. The financial assurance mechanism will be adjusted to satisfy closure requirements as outlined in this permit application and article 7, Chapter 14 of 22 CCR.

6.5 Closure Certification Report Requirements

It is a requirement of the Closure Plan to produce and maintain the following documents at the facility throughout the duration of closure activities.

- Approved Closure Plan
- Copies of the independent qualified engineer's field observation reports
- Laboratory reports of samples analyzed
- Quality assurance / quality control demonstrations
- Manifests indicating disposition of waste inventory
- Miscellaneous operational documents and related photographs
- Closure Certification Report